

PREPARING FOR BESLAN: ANTI-TERRORISM RECOMMENDATIONS
FOR AN AMERICAN SCHOOL

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

PREPARING FOR BESLAN: ANTI-TERRORISM RECOMMENDATIONS
FOR AN AMERICAN SCHOOL, by Major Gregory D. Mittman, 121 pages.

The 2004 terrorist attack on a Beslan, Russia middle school left more than a hundred innocent schoolchildren dead and many more injured. In this tragedy's wake, numerous security experts offered American school officials recommendations on how to protect children in the United States. This study asks, "What anti-terrorism measures would be feasible, suitable, and acceptable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia?"

Examination of the Beslan attack enabled the creation of a model to replicate a similar threat undertaken against an American school. Compiling recommended anti-terrorism measures determined how a school could prevent and prepare for such an attack. Field research conducted at a confidential subject school included a site assessment and unstructured interviews with staff. Analysis includes how each identified anti-terrorism measure could affect the subject school in terms of cost, instruction, or school climate. Recommendations are made for school officials to implement anti-terrorism measures found to be feasible, suitable, and acceptable.

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CHAPTER ONE

INTRODUCTION

In this quiet moment, my mind is throbbing with the sounds and visions of children screaming, reaching to grab onto their friends, mother, or teachers to help guide them out from the whizzing bullets and falling plaster. Behind my closed eyelids, I see absolute chaos. Their bodies are falling; people are trying to hide in classrooms, their bodies jerking with each loud explosion. When I open my eyes again, all is still and serene; yet I can smell burning flesh. (2004, 9)

Lynn Lansford, *Beslan: Shattered Innocence*

Background and Context

On September 1, 2004 a terrorist group comprised mainly of Chechen rebels targeted and seized a middle school in Beslan, Russia to focus attention on alleged Russian military abuses in their separatist region. The terrorists, armed with individual weapons and explosive devices, took more than 1,000 students and adults hostage within the school. The three-day stand-off with Russian counterterrorism units and the subsequent assault on the school resulted in 330 dead and more than 700 wounded (Dunlop, 2006). Parents around the world worried that a similar terrorist attack could take place on their child's school.

Recent U.S. school violence incidents have focused national resolve on addressing vulnerabilities schools face in confronting school-shooter situations. Columbine, Jonesboro, and Virginia Tech are not just places of profound sorrow but rallying cries for those advocating significant improvements in school security. In the past decade school officials have implemented school crisis plans, held lock-down drills, and installed physical security mechanisms to protect students during a school shooting incident. However, to secure students from a concerted terrorist attack similar to Beslan,

school officials will be forced to weigh anti-terrorism measures against their impacts on a school's financial resources, instructional effectiveness, and school climate. Each dollar dedicated to new personnel or equipment must be taken from other expenditures impacting already strained budgets. Policies requiring changes in school operations effect the time and manner in which teachers provide instruction thus altering the student learning environment. Any overt anti-terrorism measure heightens threat awareness, thereby impacting the school's emotional climate. Counter-terrorism experts offer volumes of ideas and suggestions for school officials to consider as they strive to secure safe learning environments. However, for each security vulnerability mitigated the school is impacted in some way – financially, instructionally, or emotionally.

Problem Statement

School officials are aware terrorism poses a threat to their schools. They understand their schools are vulnerable. Yet, in light of many recommendations for securing schools it is difficult to determine where to begin. To protect students from a terrorist attack similar to the one that occurred in Beslan, Russia, school officials need to understand the resources required and how anti-terrorism measures impact their school's operation. More importantly, school officials need to know which anti-terrorism measures they are capable of implement that will actually protect students.

Research Questions

Using the 2004 Beslan terrorist attack as a model, this study addressed impacts on a single school as vulnerabilities are determined and anti-terrorism measures are identified.

Primary Question

What anti-terrorism measures would be feasible, suitable, and acceptable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia?

Secondary Question One

Secondary and associated tertiary questions are offered to focus the topic. First, *what tactics did the Beslan terrorists use that could be replicated on an American school?* Here the study emphasized plans and actions terrorists took in preparation for the school seizure. Did the terrorists conduct reconnaissance on the school and if so how was it accomplished? There is evidence that at least one terrorist had a detailed map of the school with him (Dunlop 2006, 27; Giduck 2005, 181). Attention will also be given to the day of the attack and the type of school selected. The First of September is a special day in Russia and schools are crowded with entire families seeing their child off to their first day of class (Dorn and Dorn 2005, 41; Dunlop 2006, 22; Giduck 2005, 111, U.S. Army 2007, 6-18). Beslan School Number One was a multi-story building with wings extending off main hallways (Dunlop 2006, 29). Why did the terrorists choose that particular day to attack? Examination of the terrorists' tactics also investigates how they gained access to the school. Witnesses reported terrorists were already in the building when the main attack took place leading one to believe a deception of some kind occurred (Dunlop 2006, 29). Finally, in the initial minutes of the attack how did the terrorists control the large crowd? Did the nature of the building and composition of the crowd play a role or factor into how the attack occurred? Chechen terrorists had previously taken large numbers of hostages. An examination of the 2002 Nord-Ost theater seizure in Moscow reveals

different crowd control techniques that ultimately proved unsuccessful for the terrorists (Dunlop 2006 46-47; Giduck 2005, 105).

Secondary Question Two

Another secondary question examined recommendations for American schools. *What anti-terrorism measures are recommended by national leaders to protect U.S. schools from an attack similar to Beslan?* Following the Beslan tragedy, US Assistant Secretary of Education Eugene Hickok sent a letter to thousands of school officials across the country. Hickok suggested both short and long term “protective measures” schools officials should enact to improve school security (Hickok, 2004). Since then, numerous anti-terrorism and school safety experts have offered recommendations for school officials to prepare their schools for a terrorist attack. Which of these recommended measures should schools implement in order to prepare for or prevent an attack similar to what occurred at Beslan?

Secondary Question Three

A final secondary question looked at how a selected school could be affected if school officials chose to implement measures to prevent or prepare for a terrorist attack. *How could one American school be affected by anti-terrorism measures?* Upgrades in materials, equipment, and personnel come with additional costs for school districts. What are the financial costs associated with implementing anti-terrorism measures? As new measures are adopted, how is a school’s ability to provide instruction altered? Finally, as the school becomes more aware of terrorism, how is the school’s emotional climate changed from the perspectives of the students and staff?

Assumptions

Assumptions made for this study were that unstructured interview participants were able to reasonably determine financial, instructional, and climate impacts of anti-terrorism measures without their actual implementation. Also, anti-terrorism measures offered for the school examined in this study were only one proposed solution set for securing a U.S. school and is not accepted as the only acceptable security technique. Finally, the study examined anti-terrorism measures implemented notionally, thus eliminating public debate surrounding potentially controversial issues.

Delimitations

This study set certain delimitations on the scope of the research. First, it did not consider any aspect of a terrorist attack inconsistent with the Beslan attack. Therefore, vulnerabilities or measures associated with an attack on a school using weapons of mass destruction are not examined. Second, the study does not address vulnerabilities that may exist off school grounds or outside normal school hours such as those that might occur on school buses, at field trips, or at sporting events. Third, this study only looked at how a school could approach the first two emergency management phases: prevention and preparedness (US Department of Homeland Security 2004, 2). The remaining two phases, response and recovery, involve resources not contained within the school and were considered beyond this study's scope. Finally, because identification of a school's security shortfalls creates additional vulnerabilities, the subject school selected for research, and all personnel related to it, remains anonymous.

Limitations

This research topic has three limitations. First, the Russian government has not been forthcoming with details on the Beslan attack. Therefore, developing a complete and accurate description of how the Beslan terrorists conducted their attack extends beyond the study's parameters. Second, most primary sources regarding the Beslan terrorist attack are written in Russian and must be translated. It is impractical for purposes of this study to have large amounts of literature translated. Possible translations of specific passages were sought but the study relied on secondary sources which refer to original Russian sources. Finally, some of the literature regarding recommended anti-terrorism measures was designated For Official Use Only. School officials, a key target audience for this study, may not be able to access restricted material; therefore, only open source material was used.

Significance

This research provides school officials an example of how one school could be affected if anti-terrorism measures are implemented to secure students from a terrorist attack similar to Beslan. While this study's results cannot be generalized beyond the subject school this information can assist in predicting potential impacts to one or more of the thousands of U.S. schools. School officials can then determine which anti-terrorism measures would be feasible, acceptable, and suitable in their own schools.

CHAPTER TWO

LITERATURE REVIEW

Though they cannot say it openly, or to the public or news media, for most American law enforcement officers and school security officials, the likelihood of an incident similar to the terrorist siege of hundreds of children in Beslan, Russia in September 2004, happening in American is more a question of when than if. (2005, 37)

John Giduck, *Terror at Beslan: A Russian Tragedy
With Lessons for America's Schools*

This study provides school officials an example of how a single American school could be affected if anti-terrorism measures were implemented to protect students from an attack similar to the one that occurred in Beslan, Russia in 2004. Results determine the feasibility, acceptability, and suitability of identified anti-terrorism measures in a subject school. Recommendations regarding which measures should be implemented are made along with suggestions for further research.

This chapter is divided into three sections. The first section discusses literature addressing terrorist tactics used in the Beslan attack. The second section examines recommended anti-terrorism measures for schools to implement in light of a Beslan terrorist attack model. The final section investigates reported anti-terrorism measures impacts on schools with regard to finances, instruction and school climate.

Beslan Terrorist Attack Tactics

Literature regarding the Beslan terrorist attack appears abundant; however, much of it addresses events occurring after the initial school seizure and is therefore beyond this study's scope. Also, noted in Chapter One as a limitation, the Russian government

has yet to release a full and accurate account of the Beslan attack. Most sources available are secondary in nature and found through popular media sources.

Former US Special Forces Soldier and Homeland Security expert John Giduck was one of the first Americans to reach Beslan following the attack on School Number One. He later returned to interview Russian counterterrorism officials who participated in the government assault on the Beslan terrorists. Giduck's research provides a unique perspective on how the Beslan terrorists prepared for and executed their attack on the school. His book's later chapters offer recommendations for American schools to prepare for similar terrorist attacks and is referred to in this chapter's second section accordingly.

Timothy Phillips worked for the British Broadcasting Company (BBC) throughout the former Soviet Union, including the Caucasus. Though not formally trained in counter-terrorism Phillips provides personal images of Beslan's victims through his work as BBC's principal translator.

The U.S. Army Training and Doctrine Command prepared a terrorism case study compilation including an analysis of the Beslan attack. Rich in details obtained from primary Russian sources this document addresses the attack in the larger geo-political context as well as specific details. Comparisons with other Chechen terrorist attacks between 1999 and 2004 shows the Beslan attack produced a higher number of casualties than any other (U.S. Army 2007, 6-11). The implication being terrorists recognize the shock value resulting from Beslan and similarly spectacular attacks can be expected.

Reconnaissance

Weeks, if not months, prior to the attack on September 1, 2004, it is believed terrorists had already set plans in motion to culminate in the tragedy at Beslan's School

Number One. It seems clear that the terrorists had prior knowledge of the school and used that knowledge to maximize their advantage during the attack. What is not clear is whether or not Beslan locals assisted terrorists with their pre-attack activities.

Gathering Intelligence

Many who have studied the Beslan tragedy believe the Chechen terrorists conducted activities at the school prior to the attack. Russian special operations officials told John Giduck, “that the terrorist intel was ‘good’ (Giduck 2005, 181).” Two weeks after the siege, Chechen leader Shamil Basayev published a letter on his web site saying that he had conducted a 10 day training course for the terrorists in a forest 12 miles from Beslan (Giduck 2005, 228). Citizens remember that one terrorist identified after the crisis had been seen in the Beslan market days before the attack. Others recount unknown men sitting on boxes on the school’s grounds about the same time (Dolnik n.d., 6-14). Some surviving victims remember terrorists using wire to arm explosives that had been pre-cut to length. These bombs were suspended from basketball goals in the gymnasium. To many this suggests the terrorists had access to the building prior to the attack (Chivers 2006).

There also appears to have been systematic thought applied to School Number One’s selection as a target. Of the six schools in Beslan, School Number One was the oldest and nearly a century old. Sections added over time made it a maze of floors and hallways. Based on their designs, other schools in Beslan would have been too easy for authorities to assault and too difficult for the terrorists to defend (Giduck 2005, 177-78). Giduck believes the terrorists had been gathering information on the schools in the area for months. He also believes that even during the initial school seizure terrorists were

gathering information as spotters were reportedly identified in the crowd (Giduck 2005, 181).

Collusion

Although unproven, many Beslan locals feel that some of their own neighbors colluded with terrorists and helped them prepare the attack. Timothy Phillips provided detailed first-hand accounts of those surviving the attack. Elvira Tuaeva remembered overhearing a conversation between a 10 year old boy she assumed was a student and one of the terrorists. The boy tugged at the terrorist's trouser leg and told him he was scared. The terrorist told him to "calm down, I'll make sure you get out." Tuaeva was not sure if they called each other by name or not but it appeared that the two knew each other (Phillips 2007, 49). As terrorists forced her and her son into the school, Larisa Tomaeva entered the school using left-over construction equipment, sand, and bricks. She is sure that these materials were left to help the terrorists since most schools would have cleaned the area up prior to the first school day. To Tomaeva, this is proof that the attack had been planned for a while and locals had helped (Phillips 2007, 251).

Suspicion has been directed at School Number One's 72 year-old headmistress, Lydia Tsalieva. Those accusing Tsalieva of working with the terrorists offered two pieces of evidence. First, only a few days before the first school day, Tsalieva approved a schedule change to begin the day an hour earlier and avoid the day's heat (Phillips 2007, 11). Many in the community believed this was done to coincide with the terrorist's timetable. Even though many Beslan residents knew of the change and were capable of notifying the terrorists, public suspicion has remained on Tsalieva (Phillips 2007, 251).

A second piece of evidence used to connect Tsalieva to the terrorists focuses on her overseeing the school's repair program conducted the month prior to the siege. Many locals believed maintenance performed the preceding summer provided opportunity for terrorists to cache weapons and explosives (Giduck 2005, 238; Phillips 2007, 251). During interviews following the siege, many hostages reported seeing terrorists pull floorboards up in the school's gym and remove explosives (Phillips 2007, 69). Locals suspected a Chechen construction company was hired to work on the school during July of 2004. It is believed this provided the terrorists opportunity to pre-stage equipment used later in the September attack (Dorn and Dorn 2005, 47). According to many locals there was no other way for so much equipment to make it into the school (Phillips 2007, 251).

Tsalieva has defended her management of the school repair program saying the work was part of normal maintenance done by school maintenance staff and was needed due to the school's poor condition. "They painted some walls and removed certain parts of the school's floors where the boards had rotted away," Tsalieva maintains (Phillips 2007, 251).

Russian special operations officials discount the terrorist connection to the summer construction project. They told Giduck that "the majority of those engaged in this [construction] were teachers at the school, along with some local construction workers." According to them, everyone associated with these repairs had been investigated and cleared by Russian officials (Giduck 2005, 238). To anyone insisting Tsalieva conspired with terrorists to attack her own school, Giduck points out that she too had been a hostage along with her sister and three grandchildren. She is seen on videotapes released by the terrorists trying to get women and babies freed. During the

government assault she was injured and remained in the hospital for three weeks (Giduck 2005, 238). This evidence notwithstanding, many in Beslan blame the school's headmistress for "virtually inviting the terrorists in and taking no preventive measures" (Giduck 2005, 238). When Giduck returned to Beslan six months after the siege, 72 year-old Lydia Tsalieva was still in hiding fearing for her life (Giduck 2005, 238).

The Day's Significance

In Russia, the first day of September is called the Day of Knowledge. It is a day when families from throughout the community walk their children to school. Often entire extended families go to celebrate a child's first day and give gifts to teachers (Dorn and Dorn 2005, 41; Dunlop 2006, 22; Giduck 2005, 111, U.S. Army 2007, 6-18). At Beslan School Number One nearly 1,000 students attended that first day. At 8 o'clock that morning, with parents, grandparents, teachers, and onlookers, the crowd numbered in the thousands (Giduck 2005, 2114).

Gaining Access

Their ability to blend into the local population allowed terrorists to drive through the countryside and into Beslan undetected. They wore black-market military uniforms and drove vehicles typically seen in the region including a military GAZ 66 troop carrier (Giduck 2005, 113-115). A local police officer questioned the group at a traffic checkpoint and was taken hostage. He was put back in his patrol car and used to escort terrorist vehicles to School Number One. The police inspector was then left in his vehicle as the terrorists began their attack. (Phillips 2007, 22-23).

At approximately 8:45a.m. more than three dozen terrorists jumped out of their vehicles and began seizing the school (see figure 1). They carried automatic weapons, grenades, sniper rifles, night vision goggles, gas masks, explosives and silenced weapons. One group surrounded the crowd comprised of mainly older women and children (Giduck 2005, 115). The second group started forcing the crowd into an adjacent courtyard. Shooting into and above the ground they began herding everyone into the gym (Giduck 2005, 115). Unnoticed by many in the crowd, some terrorists had already gained entry to the school only a few seconds into the attack (Giduck 2005, 115; Phillips 2007, 46).

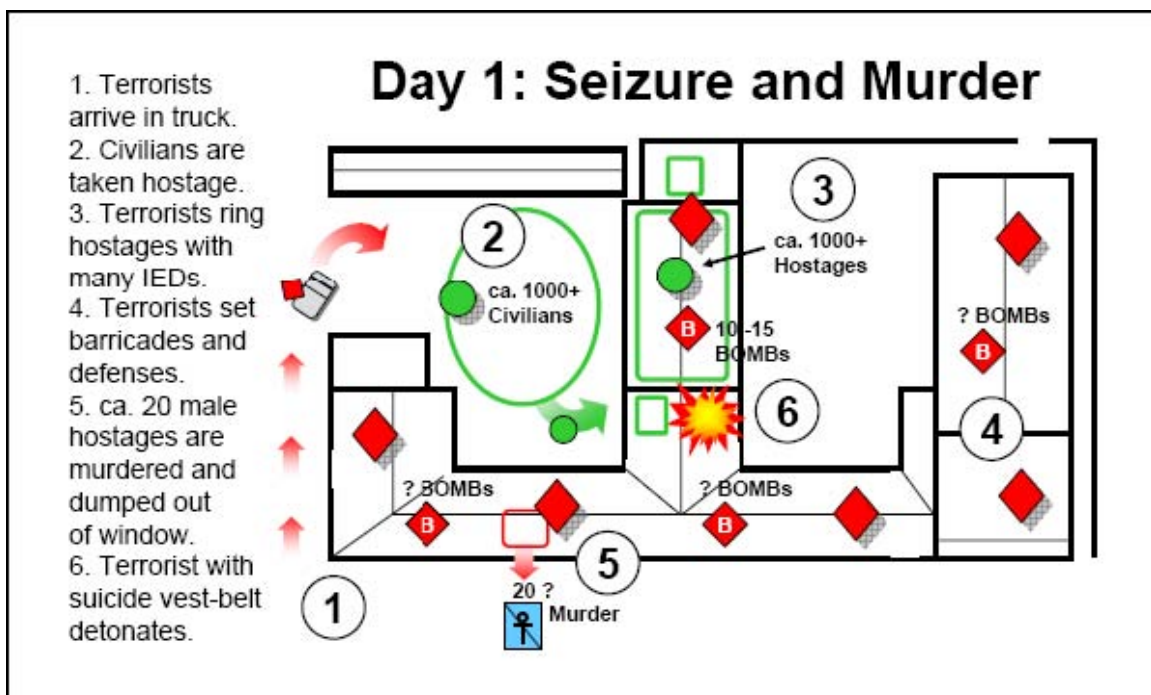


Figure 1. Terrorists Gain Access to Beslan School Number One
Source: U.S. Army, *TRADOC Intelligence Support Activity-Terror Operations: Case Studies in Terrorism* (Ft. Leavenworth: TRADOC G2, 2007) 6-16.

Containing Hostages

The speed with which the terrorists attacked the school is credited with creating a situation so confusing many in the crowd were incapable of comprehending what was occurring (Phillips 2007, 44). Even though people were being shot many stood still (Giduck 2005, 116-117). A number of reasons are offered for this apparent group paralysis. Even though the shooting was clearly heard “it was so out of context that people misinterpreted it (Phillips 2007, 26).” Dr. Larisa Mamitova assumed someone was firing a gun in the air to celebrate, which is common in the Caucasus region. She remembers thinking to herself, “Did you ever hear of such a thing? A gun salute for the children on their first day? There was just no way it could have been terrorists” (Phillips 2005, 27-28). Svetlana Dzherieva, who graduated from School Number One the year prior and was only on hand to see her younger sister to school, described those first movements as the terrorists approached the school.

Men in camouflage started running in from the direction of the railway lines. They had machine guns in their hands and they were shooting. At first I had no idea what was happening. I thought that some criminals must have escaped from the prison and run into the schoolyard. They took off their masks and shouted, “You are under siege.” Then they started shooting even more (Phillips 2007, 25).

Initial reports of fathers fighting back were discounted by Russian special operations officials (Giduck 2005, 116). One police officer in the crowd when the attack began and a lone security guard engaged the terrorists, killing one. Terrorists returned fire killing both the police officer and the security guard on the spot (Giduck 2005, 115). Some reports stated as many as five police were killed (Dorn and Dorn 2005, 41).

Once individuals in the crowd realized the noise was out of place they still were incapable of reacting. “Most thought it was a military training exercise,” said Dr. Alexie

Savaliev, a psychologist who happened to be at the school that morning (Giduck 2005, 116). Vera Slakazanova, a 70 year old grandmother, thought it was a practical joke. Then she saw two men dressed in black, firing guns, and shouting, “‘Allah Akbar!’” “I realized that I was surrounded and didn’t know where to go” (Phillips 2007, 29). Terrorists executed their seizure so quickly that many in the crowd could not process what they were witnessing in time to save them from danger (Phillips 2007, 26).

Some students and staff attempted to hide throughout the school avoiding detection. A few hid in the boiler room. When they were discovered by a terrorist, a teacher’s life was threatened if they did not come out. They surrendered and were taken to the gymnasium (Phillips 2007, 44). It was later discovered a woman and about a dozen students did not surrender and were subsequently rescued by government forces (Giduck 2005, 116; Phillips 2007, 44). Svetlana Dzherieva hid in a bathroom with some children and found that there were no windows to escape through. Elsewhere people were unable to escape through windows barred to prevent vandals from breaking in (Phillips 2007, 47). Some students fled to other parts of the building. Many were found; many were killed (Giduck 2005, 117).

It is estimated 40 percent of the crowd escaped the terrorists. The Russian government later reported that by 9:05 1,181 people were in the gymnasium. In the weeks following the attack a local teacher committee expanded the list to 1,220 names (Giduck 2005, 117). In the gymnasium intimidation was the terrorists’ crowd control method. Young girls were savagely raped with gun barrels in front of the hostages (Giduck 2005, 117). One father came to the gym and wanted to check on the situation with the children inside and was shot (Giduck 2005, 116).

With the gymnasium becoming a cacophony of terrified children and adults, 46 year old Ruslan Betrozov attempted to calm everyone down. He told the terrorists that if they would stop shooting, the hostages would quiet down on their own. Larisa Tomaeva, a nurse who had just entered the gym described what happened next.

[The terrorists] forced [Betrozov] to the ground and shouted that if we weren't all as silent as the grave immediately, they would shoot him. But there was no way of getting everybody to be quiet. [Betrozov] was begging us to be silent. But since nobody could get everybody quiet, the terrorists took him and dragged him a bit more into the centre of the gym and shot him through the back of the head (Phillips 2007, 67).

Two hostages were made to remove Betrozov's body. As they carried it from one end of the gymnasium to the other it left a blood trail. Parading the body across the gym quieted the crowd and reminded everyone of the consequences for misbehaving (Dorn and Dorn 2005, 41; Giduck 2005, 116; Phillips 2007, 68).

As male terrorists planted bombs in the school, the two female terrorists collected electronics, watches, and handbags. If a hostage was thought to be hiding something they were frisked. If anyone was found to be hiding a mobile phone terrorists threatened to shoot twenty hostages (Chivers 2006; Dorn and Dorn 2005, 42; Phillips 2007, 70). With a confiscated video camera terrorists made a video of them shooting kneeling men and boys. This eliminated the threat of resistance the men and oldest boys posed. It also added to the terror experienced by the other hostages. (Giduck 2005, 184)

This section examined research related to characteristics of the Beslan attack. In Chapter Four this information is used to create a hypothetical attack capable of being conducted on an American school. The following section examines research related to anti-terrorism measures capable of either preventing or preparing for an attack similar to

the Beslan. This information will be used later to construct an anti-terrorism plan to assess potential impacts on a subject school.

Identified Anti-Terrorism Measures

Crisis management is commonly organized into four phases: prevention, preparedness, response, and recovery (Dorn et al. 2004, 5; U.S. Department of Homeland Security 2004, 2). Each phase is unique in either what it aims to accomplish, the types of resources used in relation to the event, or when those resources are brought to bear. The first two phases, prevention and preparedness, involve actions taken prior to a crisis. Therefore, it is these two phases that this chapter focuses on as it identifies anti-terrorism measures relevant to an attack similar to Beslan. The third and fourth phases, response and recovery, should also be planned prior to an incident. However, as these phases are not carried out until after a crisis begins, actions taken in these later phases are beyond this study's scope and are not examined.

This section draws heavily on Michael Dorn's work as one of the nation's leading school security experts. Dorn, along with, Gregory Thomas, Marleen Wong, and Sonayia Shepherd, authored *Jane's Safe Schools Planning Guide for All Hazards*. This publication makes detailed school security recommendations across the four phases of crisis management as well as provides assessment instruments and additional resources for school officials.

Retired U.S. Army Lieutenant Colonel and counter-terrorism expert Joseph Ruffini's work provides recommendations for how American citizens can prepare for and prevent terrorism close to home. Ruffini includes threats commonly found in homes and

in work places across the country. His work on threats to schools contributes to this study by supporting many of the identified anti-terrorism measures.

In 2003 the Alfred P. Sloan Foundation sponsored a conference on challenges to school safety following the September 11th attacks. Participants included educators, school safety experts, and various government agency representatives. This conference's report provides useful subjects including resource needs and emergency preparedness processes required in today's schools (National Strategy Forum 2004, 4).

Prevention

The first crisis management phase, prevention, calls for planning and implementing resources prior to a crisis's initiation. Michael Dorn describes *prevention* as "attempts to deflect crises before they occur by reducing the risks involved to the greatest extent possible" (Dorn, et al. 2004, 5). A subset of prevention is *mitigation* which "involves efforts to minimize the negative impact of those events that cannot be prevented or occur despite prevention efforts" (Dorn et al. 2004, 5). For instance, moving parking away from a building could prevent a vehicle-borne explosive device from causing damage to a facility. Installing anti-fragmentation film on windows would mitigate an explosive device's effects. For purposes of this study the distinction between prevention and mitigation is irrelevant and is only offered here to contextualize this first phase of crisis management. Identified anti-terrorism measures in this phase include a closed campus approach, inner-perimeter access controls, and conducting background checks.

Closed Campus

Determining anti-terrorism measures for American schools includes using “target hardening” techniques to make terrorists go elsewhere (Dorn et al. 2004, 79). The U.S. Department of Justice believes a majority of school problems result from unauthorized persons on campus. The Department advocated a closed campus approach and recommends schools post security guards at campus entrances and be prepared to search vehicles (Green 1999). Deputy Secretary Hickok’s letter recommended school officials “consider a closed-campus approach to limit visitors” and “consider a single entry point for all attendees, staff and visitors” (2004). Russian special operations commander Colonel Sergei Lisyuk told John Giduck “the entire school compound should be fenced, with iron doors at all exits, entrances and gates. Gates should be electronic, operated by remote control. Different sections of the school should be designed to close electronically so they can lock off the various sections in order to reduce the number of victims in a takeover” (Giduck 2005, 250). Some schools in the U.S. have already installed “bullet walls” around their campuses (Dorn et al. 2004, 83). Other characteristics of a closed campus approach could include using barriers to limit vehicular access to school grounds and random access measure to keep attackers off balance (Dorn et al. 2004, 79).

Inner-Perimeter Access Controls

One of the most basic fundamental requirements for a safe school is its ability to control access. “Any school that does not have reasonable access control measures in place is a less safe school than it should and could be” (Dorn 2005). Michael Dorn stated paying attention to who is around “students can not only help prevent action like that in

Beslan, but also curb theft of school property, embezzlement, and child abductions and molestation” (Dorn and Dorn 2005, 47).

The U.S. Department of Justice advises schools to have policies governing who is allowed access to buildings (Green 1999). Dorn has identified three concepts for building access control: proper facility design, use of visible identification badges, and applied procedures throughout the school (Dorn et al. 2004, 82-83). Policies must be implemented that include locking unoccupied rooms to prevent unobservable illegal activity (Dorn 2005; Texas School Safety Center n.d.). Electronic devices are recommended to regulate a visitors’ access. All school keys should be accounted for and controlled at all times (Texas School Safety Center n.d.). Visitor badges should be temporary and made to fade over time (Dorn 2004, 82-83, Green 1999). If staffing allows, schools should have someone accompany visitors at all times (Dorn et al. 2004, 82-83). Not only should visitors sign in but an important procedure is for them to sign out which provides a record of the duration of their stay (National School Safety Center 2004,).

Policies and procedures are meaningless unless the entire school staff implement them. School staff members should be trained to “assist” strangers of any age seen on school property (Texas School Safety Center n.d.). Unfortunately, it is too common for visitors to be allowed access to a school and never be approached by a staff member. One study conducting research on law enforcement’s role in schools acknowledged being allowed unchecked access even though staff members observed them in the halls and common areas. The report found schools where parents were able to bypass the office and go unchecked to their child’s classroom were poorly arranged and “unable to

intercept visitors due to the placement of the office” (Travis and Coon 2005, 187). But Michael Dorn stated that for inner-perimeter controls to work properly schools will require more than just physical adjustments and sign in procedures. “For access control to work properly, a cultural change must occur in the school. Safety and security have to become a natural part of the outlook of staff, students and parents.” (Dorn 2005)

Background Checks

School officials are recommended to pay careful attention to individuals doing work on schools or who are employed around students. Background checks of potential employees should include fingerprints to ensure a proper amount of information is obtained from various databases available (Dorn and Dorn 2005, 47). Temporary workers, subcontractors, volunteers, chaperones, and anyone else having access to school property and children should also be subjected to background checks (Dorn et al. 2004, 75). At a minimum “courthouse” checks on those who routinely visit the school should be conducted (Texas School Safety Council). Background checks such as these are not only helpful in preventing an event similar to Beslan, but also mitigate theft, child abductions, and molestation. Crimes such as these have often resulted from poor screening of individuals granted unsupervised access to schools (Dorn and Dorn 2005, 47).

Preparedness

Similar to prevention, the second crisis management phase, preparedness, also requires planning and implementing resources prior to a crisis initiation. Michael Dorn states *preparedness* “assumes that a risk may eventually result in an incident and then

allocates resources to reduce its impact” (Dorn et al. 2004, 5). An example of preparedness is a fire drill. A fire in a school cannot be completely prevented so plans are created to evacuate students and staff to escape danger. Identified anti-terrorism measures in this phase include armed security teams, off-site evacuation drills, and liaison with law enforcement.

Armed Security Teams

Additional security personnel within schools are also recommended as an anti-terrorism measure. School Resource Officers (SROs) are valuable to school officials as they conduct law enforcement duties within the building. However, many SROs are tasked with numerous daily activities include patrolling grounds and facilities, writing reports, teaching classes, and attending advisory meetings (Travis and Coon 2005, 57). There is also concern that SROs are not equipped properly to confront an attack similar to Beslan. At least four police officers have been shot and killed in schools even though most SROs are armed with standard service pistols. Increasingly, they are being armed with “police carbines, rifles and shotguns” which provide greater lethal effects (Dorn et al. 2004, 91).

In Belsan’s aftermath many anti-terrorism experts recommend going beyond a single police officer in schools. A Russian Special Operations commander told John Giduck that each school needs counter-surveillance and counter-intelligence professionals (2005, 250). Giduck reported that Russian officials now claim to have increased security in schools and send police officers to guard them during school hours. But Giduck discounts this. According to him, schools in Moscow and St. Petersburg,

when they can afford it, hire one security guard armed only with pepper spray (2005, 252).

Giduck recommends deploying an armed security team in every school. In his opinion “for \$50,000 a year” each school could hire, train, and equip a fire team armed with automatic weapons, silenced handguns, flash bang grenades, and tactical gear. Giduck contends a three-man team could hold off a force nine times their size (2005, 286). He further recommends training school officials and teachers to be trained to retain and use firearms in schools. Giduck acknowledges the American public will not accept increased number of security weapons in schools “until we have a big body count” (2005, 288).

Off-site Evacuation Drills

LTC (Retired) Joseph Ruffini refers to former West Point psychologist Dave Grossman who said no child has been killed in a school fire in half a century yet schools are forced to emphasis fire drills. According to Ruffini, if school officials could promote terrorism drills to the level of a fire drill it would be a good start (2006, 176). A good example of the need for evacuation drills was found during the September 11, 2001 terrorist attacks. Evacuations conducted by New York City schools affected by the collapse of the World Trade Center were not orderly, plans had not been practiced, and teachers had not been trained due to the school year just beginning (National Strategy Forum 2004, 6). Some Manhattan schools were forced to evacuate to sites miles away. Two high schools’ evacuation plans called for students to assemble in the lobby of the South Tower of the World Trade Center. An on-the-spot decision to evacuate away from ground zero saved thousands of lives. New York City schools are now required to select

four evacuation sites, “one that is considerable distance from the affected school” (Dorn et al. 2004, 40).

To evacuate students correctly requires schools to conduct regular evacuation drills (National School Security Center 2004, 9). U.S. schools reported to have inferior safety procedures failed to conduct drills of any sort. Conversely, schools judged superior in safety procedures not only conducted regular drills but documented each occurrence (Phinney 2004, 11-48). Most states require a certain number of drills each year. Many, such as Georgia, have gotten laws changed to allow fewer fire drills and replace them with other emergency response drills. (Dorn et al. 2004, 160). These new drills can take the form of communications exercises, table top exercises, functional exercises, or full-scale exercises. Each drill rehearses broader ranges of procedures yet requires increasing coordination and resources to accomplish (Dorn et al. 2004, 147-154).

Important details contributing to student safety can be refined and practiced during a drill. Communications during an evacuation may be particularly difficult to maintain. Schools should create redundancy in communication due to overloading systems or damage to hard-wired phones and radios (Dorn et al. 2004, 129). The Indiana State Department of Education recommends that schools not rely on cell phones as the system has very little surge capacity and would be overly taxed in a real-life incident in a school (Ingraham 2003, 12). School staff should know not to use portable electronic devices because their energy may set off a bomb. Exceptions must be made for life threatening situations and staff members need to understand this (Dorn, et al. 2004, 122). An effective school safety plan should include a list of students and staff with limited mobility and include separate detailed procedures to follow for their evacuation. (Dorn et

al. 2004, 39). Michael Dorn warned of the potential for students to “self-dismiss” during an evacuation drill and go home on their own. During an evacuation drill administrators should “stress the importance of their students following directions to avoid the confusion and unnecessary panic that will be caused by some students going missing or unaccounted for.” (Dorn et al. 2004, 190).

School officials can no longer ensure student safety by sounding a fire alarm and “herd[ing] kids into parking lots” (Ruffini 2006, 177). Schools must have alternate evacuation routes and planned collection points (Giduck 2005, 279). “To terrorist operational planners, school parking lots full of hundreds of evacuated students and teachers constitute a perfect military kill zone” (Ruffini 2006, 177).

Liaison with Law Enforcement

Many anti-terrorism specialists favor a community relations approach to protecting schools. Dorn, Giduck, and Ruffini all recommend schools create liaisons with local law enforcement. Police should be given school floor plans and a videotaped walk-through, a process referred to as “tactical videotaping” (Giduck 2005, 179-180; Ruffini 2006, 180). Giduck goes on to advocate establishing channels of communication between school officials and police. He questions whether school officials know whom they should be talking to during a terrorist attack (Giduck 2005, 280). To alleviate friction between school, parents, and law enforcement Giduck recommends the three groups work together to develop protocols for mass emergency situations (Giduck 2005, 284). Giduck also described a situation where terrorists can easily obtain school blueprints and security system layouts as public documents. Therefore, he advises school officials to

develop relationships with county and municipal government officials to keep them informed of who has sought information on their buildings (Giduck 2005, 283-284).

Anti-Terrorism Impacts on Schools

The literature review's final part examines materials addressing the impact terrorism mitigations and increases in school security have already had on schools. Impacts on financial costs, instruction, and school climate are each addressed.

Lawrence Travis and Julie Coon's research for the National Institute of Justice attempted to determine the current role of law enforcement in American schools. Among the 3,156 schools included in their study, Travis and Coon provide a variety of attitudes and impacts resulting from the many roles law enforcement officers are required to perform in schools (2005, 6-7).

David Lakamp and Gill McCarthy's research addresses the cost-benefit analysis of increased anti-terrorism measures at the Naval Post-Graduate School. Using the 1995 Oklahoma City Federal Building Bombing as a model this post-9/11 study calculated the cost of the security measures taking "into account both the fiscal value of measures implemented (manpower, construction, and procurement costs) and the opportunity costs (value of the time of affected personnel)" (Lakamp and McCarthy 2003, 4). These costs were compared with the value of damage to facilities and loss of life.

U.S. Army retired Lieutenant Colonel Dave Grossman is described as a leading expert in the field of human aggression. Grossman's research on the psychological nature of combat and in-depth analysis of school shooting incidents provides important details as to how the human mind responds to extremely stressful situations.

Finances

Stated previously, as a result of the Beslan attack Russian officials claim to have increased security in schools by sending police officers to guard them during school hours. John Giduck discounts this due to the fact that the Russian government simply cannot afford to do so (2005, 252). It comes as no surprise that American schools suffer a similar financial restriction limiting their ability to increase school security. The National Strategy Forum, a non-profit, non-partisan research institute that examines issues affecting U.S. national strategy and security, described school security post-9/11 to be severely lacking. Additional funding was one of the key factors in preparing U.S. schools for a catastrophic terrorist attack (2004, 5). Travis and Coon found that 22.2 percent of school principals participating in their study believed they did not have adequate funds simply to hire a single School Resource Officer (2005, 35).

With such minimal financial resources available to improve security schools must be selective in which measures they implement. Insurance companies use a methodology to determine what “acceptable losses” are during the risk and vulnerability phases. “Acceptable losses are negative impacts that can be accepted as a cost of educating children when weighed against the costs associated with preventing such losses” (Dorn et al. 2004, 52). More simply put, with finite resources school officials must determine what they can and cannot do to protect students. In their research comparing damage to property with loss of life Lakamp and McCarthy found efforts to protect the U.S. Naval Post Graduate School from a bomb similar to the one used in Oklahoma City would have gained no benefit. Even though the authors acknowledged the benefit of security their study questioned the costs involved. Given the minimal risk of such an event occurring at

the school increases in security measures provided the school with “a tiny benefit, at a very high cost” (2003, 31).

Instruction

In the current climate of accountability for their students’ academic performance school officials find educational achievement and preparation for emergencies linked. Administrative and political pressures tend to place meeting achievement testing goals in competition with school safety for time and resources (National Strategy Forum 2004, 5). The official report following the 2007 shooting at Virginia Tech stated in educational settings officials may prioritize instruction over safety. The report acknowledged it is difficult to make decisions regarding school security that may impact the learning environment (Virginia Tech 2007, 13).

Difficulty separating school instruction and school security may not be limited to school officials. It may be inherent in our educational system itself. In a letter to school superintendents Michigan Superintendent of Instruction Thomas Watkins attempted to address questions regarding the possibility that schools would close if the National Terrorist Alert Level increased. Dismissing schools would impact the number of days and hours of school instruction provided, a minimal amount of which is mandated by state law. One of two possible results could come from this. State officials could waive the number of hours required for that year or schools would be forced to add additional school days to the calendar to meet State requirements. Watkins could provide no answer and simply stated, “In the event that the nation goes to a threat level red, and circumstances warrant schools being closed, we will pursue discussion with the Legislature and [Governor’s] Office regarding this issue” (Watkins 2003). Without

assurance how each state will address schools failing to meet their required days and hours of instruction for security related dismissal, school officials will continue to wrestle with the need to provide instruction with the need to keep students safe.

School Climate

Michael Dorn warns that it is possible for schools to “help achieve the very goals of terrorists by creating fear that is out of proportion with reality” (2004). Increases in school security may also increase anxiety among students and staff which could be detrimental to the school’s effectiveness. Even though John Giduck strongly recommended increases in school security following the Beslan attack he admitted one Russian psychologist told him barricading schools “like castles” will psychologically harm children (2005, 251).

Dave Grossman, who has studied the effects of fear in combat and other stressful situations, has determined the fear of interpersonal aggression to be the most powerful fear inducing stimuli for humans (2004, 3). Using the Washington D.C. sniper as an example Grossman noted how people in the area changed their habits and routines to avoid being in open areas. To Grossman, the behavior was irrational given the minimal chance each person would be engaged by the sniper. However, their perception of the danger’s possibility created such fear in each person they chose to alter their daily routines. The real significance is that unlike a fear of tornados or snakes, when human factors cause stress the degree of stress is more severe and longer lasting. “In other words,” writes Grossman, “when it is another human being who causes our fear, pain and suffering, it shatters, destroys and devastates us” (2004, 3-4). The danger in

implementing anti-terrorism measures in schools is that school officials highlight the possibility of interpersonal aggression and risk increasing fear among students and staff.

Attitudes regarding school security measures vary. Travis and Coon found that in schools without School Resource Officers, 66.2 percent of principals felt they were not needed in their schools (2005, 35). Those who opposed law enforcement on campus cited the impression that “something was wrong at the school to warrant it, and they did not want people to have that impression of their school” (Travis and Coon 2005, 196). The study found parents to be very supportive of police presence at school. More overt police activities were tolerated by parents depending on students’ ages of the students. Parents supported police-led education programs at elementary levels and police security activities at high school. Even then a small number of parents reported they did not believe law enforcement officers belonged in their schools on a daily basis. Students reported law enforcement officers on campus would be more tolerable so long as the security staff were liked and respected by students. Students obviously opposed having law enforcement on campus if they felt harassed or “treated like criminals” (Travis and Coon 2005, 196-197).

Johnson County Community College, in Overland Park, Kansas, considered allowing campus security to be armed as a result of the 2007 Virginia Tech shooting. According to College officials campus security officers are required to perform many of the duties of a police officer but are not equipped similarly. The school’s Associate Director for Public Safety stated the 40 hour training in “verbal judo” security officers received simply was not adequate enough to prevent a major violent act on their campus. Still, not all students were so eager to see the proposed security increases. Even though it

had only been six month since the tragedy at Virginia Tech, one student, who favored better-equipping campus security officers, stated he “wouldn’t feel safe being around people who have guns” (Hall-Bloubaum 2007).

Conclusion

This chapter examined literature related to the Beslan attack, anti-terrorism measures, and impacts on schools. Much of this information will be applied to this study’s methodology found in the next chapter. Drawing from this chapter a model was created for a hypothetical attack similar to Beslan. Also, anti-terrorism measures examined here were hypothetically implemented at a subject school to determine how its staff believed such measures would impact costs, instruction, and school climate.

CHAPTER THREE

RESEARCH METHODOLOGY

There is no safety for honest men except by believing all possible evil by evil men. (1790)

Edmund Burke, *Reflections of the Revolution in France*

Our children are America's most visible representation of innocence. Purely, from a terrorist's perspective, there would be no more effective way to crush the heart of America than to target our children at school, a place where they should feel the most safe. (2008)

Texas School Safety Center

This study's purpose is to provide school officials an example of how one school could be affected if anti-terrorism mitigations were implemented to protect students from an attack similar to one that occurred in Beslan, Russia in 2004. Qualitative data was gathered regarding financial costs, instructional impacts, and school climate effects associated with securing students against the hypothetical threat to a subject school. Recommendations are made concerning which anti-terrorism measures are feasible, acceptable, and suitable for implementation at the subject school

Research Design

Chapter three defines research questions, describes subject school selection criteria, discusses field research procedures, and addresses validity and reliability. First, it discusses methods used to answer each of the three secondary research questions. The accumulation of data obtained for these three questions was compared against definitions for feasibility, acceptability, and suitability thus answering the primary research question. Next, the chapter describes the subject school's selection for this study. It compares and

contrasts this school with Beslan School Number One and explains the subject school's applicability. This chapter then details development of unstructured interviews and the conduct of an on-site analysis of the subject school to obtain data for comparison between the subject school and Beslan School Number One. Finally, chapter three addresses steps taken to ensure the study's methodology validly answered proposed research questions. Reliability is addressed in context of characteristics and conditions found in the subject school.

Addressing Research Questions

The study was organized to collect data answering the primary research question: *What anti-terrorism measures would be feasible, suitable, and acceptable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia?* This question forms the basis for asking each secondary question which required varying data collection methods to answer.

Literature review conducted in Chapter Two pertaining to the Beslan attack allowed for the creation of a model to answer the first secondary question: *What tactics did the Beslan terrorists use that could be replicated on an American school?* Terrorism can assume many forms and therefore requires various anti-terrorism measures to prepare for it. It is impossible to examine the full range of conceivable terrorist attacks on a school. Mitigating against an attack to the Oklahoma City Federal Building bombing requires techniques different than preventing a chemical agent from being released in a school's ventilation system. Therefore, this study created a hypothetical scenario around which to examine a subject school's vulnerabilities. The 2004 Beslan attack is an appropriate model for this study for the simple fact that it did occur. As the most

extensive terrorist attack against a school to date it is representative of a challenge that would significantly stress anti-terrorism capabilities of most school districts. While it limits the research's scope this model makes an assessment of whether a school's anti-terrorism measures are feasible, acceptable, and suitable in context of the Beslan attack. Without this model threat capabilities would force a list of identified anti-terrorism measure to morph into a course of action not considered, thus making this research difficult to focus and limit its validity.

Additional literature review focusing on anti-terrorism measures answered the second secondary question: *What anti-terrorism measures are recommended by national leaders to protect U.S. schools from an attack similar to Beslan?* While recommendations for protecting schools are extensive only those found to assist schools in preventing and preparing for an attack similar to Beslan were considered. For instance, metal detectors are a common security measure implemented by schools to curb violence. Yet, their use at Beslan would have been insufficient to prevent the attack. The terrorists moved quickly, brandished weapons instead of concealing them, and school security personnel were powerless to intervene. Only recommendations found in the literature deemed to have been useful at Beslan were considered for this study.

Finally, data collection in the field, using a subject school and interviews with its staff members, sought to answer the third secondary question: *How could one American school be affected by anti-terrorism measures?* The basis for selecting this school and techniques for obtaining information related to it are presented in the two next sections.

Subject School Selection

Field research examined how a selected American subject school would implement a list of anti-terrorism measures designed to combat an attack similar to Beslan. Any anti-terrorism measure already in place at the subject school was accepted in its present conditions. Any measure not in place was notionally implemented regardless of financial, instructional, and/or emotional impact on the subject school. Sketches of the school and a list of anti-terrorism measures were prepared and used during unstructured interviews.

The subject school was selected for this study primarily due to the researcher's personal connection with the district's administrators. Their willingness to participate coupled with the researcher's ease of access to the subject school ensured a thorough analysis of impacts from anti-terrorism measures. The subject school also shares similarities with Beslan School Number One. Both schools are located in small working-class towns near large metropolitan areas. Both buildings are arranged similarly with main hallways leading to perpendicular secondary hallways (see figures 1 and 2). Both contain large gymnasiums. Both are surrounded by residential buildings whose occupants are frequently affected by school operations. Both are accessed by a single street in front of the building but also allow service access to the rear. Finally, both are considered "middle schools" within their respective cultures.

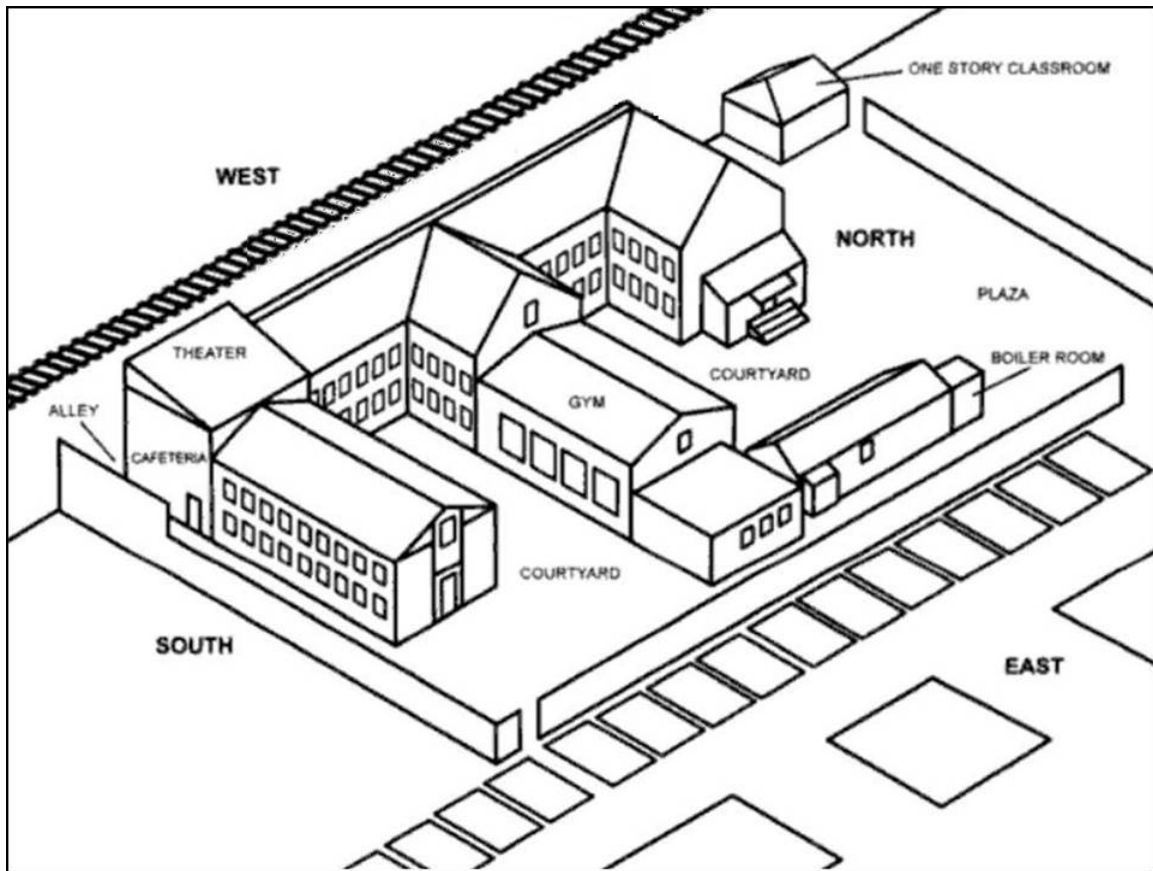


Figure 2. Beslan School Number One and Grounds

Source: Giduck, *Terror at Beslan; A Russian Tragedy with Lessons for America's Schools* (Golden, Colorado: Archangel Group, 2005) 145

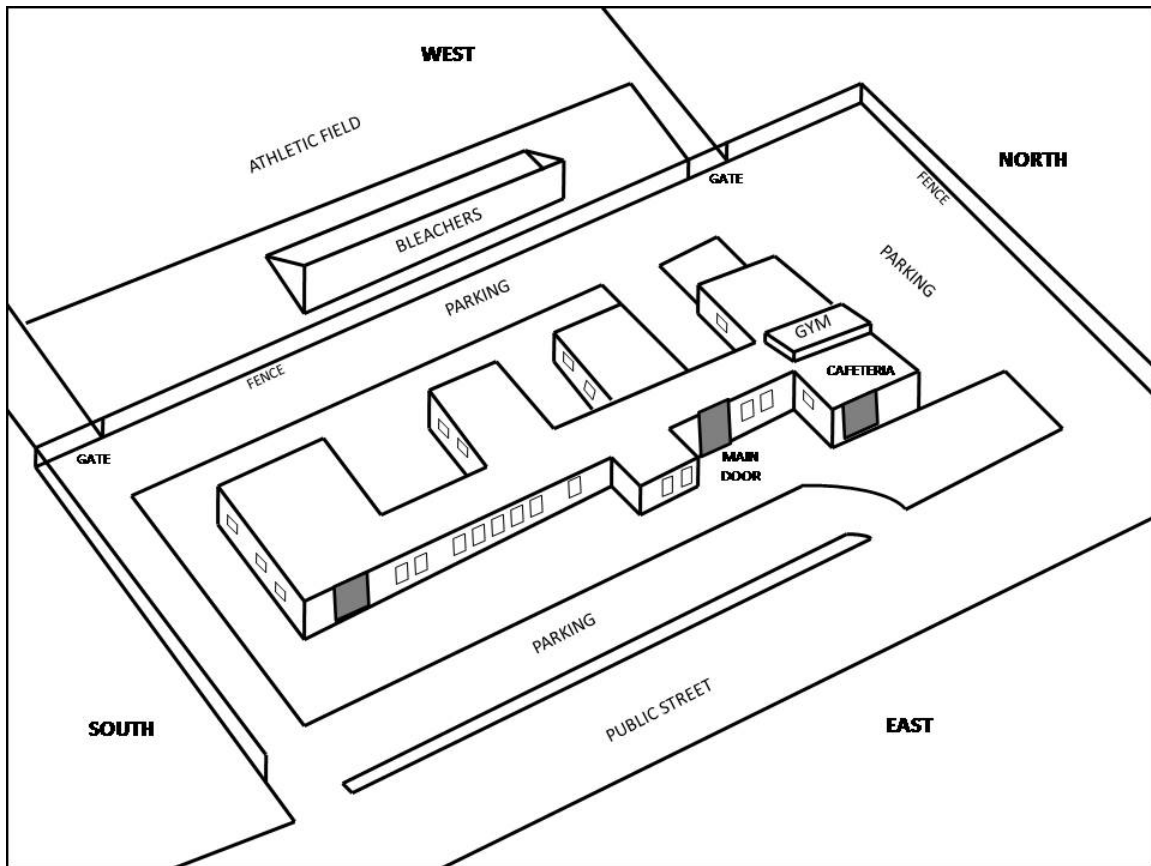


Figure 3. Subject School and Grounds

While the subject school has many characteristics in common with Beslan School Number One, differences between the two clearly exist. These differences were determined to have minimal impact on the study's validity and reliability. Student composition of the two schools differs. Beslan School Number One students ranged from primary to late secondary grades while the subject school's population is sixth to eighth grade. Beslan School Number One has multiple floors, a theater, and a remote classroom. The subject school has a single story, no theater, and all classrooms are contiguous to the school. Finally, Beslan School Number One is surrounded by brick and mortar walls

obstructing the school's view from the neighborhood. The subject school has no walls and, while fenced in, is visible on all four sides from the surrounding area.

These differences between the two schools have minimal impact on this study's results. The fact that the two schools varied in student composition would not have altered the manner the terrorists attacked the respective school. Immediate and overwhelming force was used in Beslan and would be expected at the subject school regardless of the students' ages. Nor would anti-terrorism measures vary based on student ages as these measures would focus externally regardless of the population they were designed to protect. The difference in the two structures would also have no affect on how anti-terrorism measures were implemented. The additional story, theater, and remote classroom found in Beslan did not affect the terrorist attack as students were consolidated in the school's gymnasium. The same technique would be applicable during an attack on the subject school. Finally, walls surrounding three sides of Beslan School Number One did allow the terrorists to approach the school in a concealed manner up to the moment of attack. However, the most likely avenue of approach to the subject school, from the southeast, would also allow attackers to gain surprise access to the facility. Unrestricted avenues away from the subject school on one side could allow a greater number of students to flee. Yet, it is reasonable to expect that a significant percentage would remain and thus be taken hostage inside the school. In summary, impact of these differences is minimal and, nonetheless, is outweighed by the two schools' similarities. The subject school is therefore determined to be a suitably comparable facility to Beslan School Number One.

Field Research

The researcher collected data related to the subject school during two sessions. The first was a full day where the building principal granted the researcher unlimited access for conducting a facility analysis. The second session consisted of two days conducting unstructured interviews with building staff.

Facility Analysis

An on-site facility analysis was conducted to determine the nature of security measures already in place at the subject school. This included the development of a facility sketch (see figure 3), review of the building's Crisis Management Plan, and the gathering of relevant demographic data. A facility assessment guide developed by Safe Havens International (2004, 3-25) served as the basis for this on-site analysis. Results of this analysis are found in Appendix A.

Interview Process

The researcher conducted interviews with a sampling of school employees. Interview participants were chosen after having met established criteria for their inclusion. First, as participants were required to evaluate hypothetical impacts on their roles within the school, it was necessary that they be knowledgeable of their duties as well as the facility and its operation. Second, in order to cover as wide a spectrum of roles and responsibilities as possible the researcher sought to interview participants representing a variety of roles within the school. Teachers were selected to ensure a wide coverage of grade levels and content areas without duplication. Given these prerequisites for participation in the interviews the school's principal was consulted to recommend

employees capable of maximum contribution to the study. Finally, prospective participants were asked to join the study and were only interviewed after their consent had been obtained. These volunteers, committed to providing honest and objective feedback, strengthened the credibility of data collected for this study.

Unstructured interview topics (see Appendix B) were distributed to all participants one week prior to conducting interviews to allow for preparation time. Participants were asked not to discuss the topic with anyone prior to the interview to prevent possibly contaminating their personal responses. Immediately prior to the interview biographic data was collected describing each participant's background, role in the school, and their level of experience with school security. Participants were given opportunities to ask questions of the researcher to clarify details regarding interview topics. Unstructured interviews were then conducted focusing on anti-terrorism measures identified in the literature review. Framed by financial, instructional, and school climate impacts, questions elicited the interviewees' perceptions regarding how their roles in the school could be impacted if the identified anti-terrorism measures were implemented at the subject school. Executive summaries of each interview are located in Appendix C.

Identifying anti-terrorism measures, or lack thereof, within the subject school inherently increases the school's vulnerability by making such measures known to the study's readers. Therefore, every reasonable measure was taken to protect the subject school's and interview participants' identities. Protection outside the school district was accomplished by ensuring the identity of the subject school remained confidential. Inside the school district, protection for interview participants was not easily accomplished since maintaining a participant's anonymity from co-workers was often impractical. Therefore,

in soliciting permission to involve the subject school in this study, both the superintendent and principal were informed of the study's scope and provided copies of the study's prospectus, including research questions. Following their approval, the final list of intended interview participants was approved by the principal. Finally, interview participants were approached individually, informed of the scope of the research, and told that their immediate supervisor approved their inclusion in the study. This assured all participants that their responses would not be used against them and that the study's intent was not to embarrass the participant, subject school, and/or the subject district.

Validity and Reliability

The hallmark of good research is that it is both valid and reliable. To be valid research the study must completely answer research questions presented using objectively interpreted data. Invalid research fails to contribute to the field of study's expansion and marginalizes the researcher as well as the sponsoring institution. To be reliable the research's results must be replicable given similar conditions. Unreliable research also does not effectively contribute to the field of study and wastes resources on conclusions having little or no application to the problem presented. Qualitative research, such as that found in this study, aims to examine difficult to measure characteristics such as perceptions and behavior. This study is presented as both valid and reliable only when conducted through the given qualitative methodology and under conditions found in the subject school.

The study's methodology contributes to validity by ensuring information used to develop conclusions relates to research questions. Primary, secondary, and tertiary research questions were all designed prior to data research thus insuring questions, not

data, directed research. Interview topic areas were approved by the U.S. Army Command and General Staff College's Quality Assurance Office and the U.S. Army Research Institute. These unstructured interviews contributed to the study's validity by enabling collection of detailed qualitative data specific to an attack similar to Beslan. Interview questions were further refined during two practice interviews with education professionals not participating in the study. Following the interviews participants were asked to review executive summaries (see Appendix C) to confirm their accuracy. This promoted both validity and reliability as it ensured their responses were recorded accurately.

The subject school's characteristics also contribute to validity and reliability. By selecting a subject school similar to Beslan School Number One validity is promoted by ensuring anti-terrorism measures recommended as a result of the Beslan attack would be applicable to the subject school. Also, by describing characteristics of the subject school and interview participants the researcher ensured reliability insofar as similar results would be expected in future research provided the subject school characteristics remained consistent. Research conducted in an urban school using forced participants would be expected to vary from the results found in this study. While results are expected to be similar, consistently reliable results can only be expected by strict adherence to the methodology and subject school's characteristics described in this study.

CHAPTER FOUR

ANALYSIS

Children have been killed in the past. They are targeted today, and remain threatened tomorrow.(2006, 175)

LTC (R) Joseph Ruffini, *When Terror Comes to Mainstreet*

We have the right to kill 4 million Americans - 2 million of them children
(2002)

Al Qa'ida Spokesman Suleiman Abu Gheith,
In the Shadow of the Lances

This study's purpose is to provide school officials with an example of how one school might be affected if anti-terrorism mitigations were implemented to protect students from an attack similar to 2004 tragedy in Beslan. Qualitative data regarding financial costs, instructional impacts, and school climate effects associated with identified anti-terrorism mitigations is presented here. This information enables school officials to assess which recommended anti-terrorism mitigations present acceptable impacts and to integrate these mitigations into school security plans.

Chapter Four is organized by research question beginning with secondary and concluding with primary. Tertiary points for consideration, presented in Chapter One, are addressed to support their respective secondary question.

Secondary Questions

Each secondary question is designed to address specific purposes for this study. The first creates a model based on the 2004 Beslan attack. The second identifies anti-terrorism mitigations school security officials recommended implementing to either prevent or prepare for an attack similar to the Beslan model. The third question assesses a

single U.S. school to determine how implementing anti-terrorism mitigations resulting from question two could affect a selected school. Each secondary question is presented here with analysis based on tertiary questions presented in Chapter One.

Beslan Model

What tactics did the Beslan terrorists use that could be replicated on an American school? The model used for this study is based on the Beslan attack. Four characteristics of the attack, examined in Chapter Two, are presented here to create this model. These characteristics are: terrorist activities prior to the attack, significance of the day chosen for the attack, how terrorists gained access to the school, and how hostages were controlled in the first moments of the attack.

Reports from Beslan indicated a strong possibility the terrorists conducted reconnaissance of School Number One in the days and weeks preceding the attack (Chivers 2006; Dolnik, 6-14; Giduck 2005, 228). Although there was evidence to refute the claim, there were also reports terrorists cached weapons and explosives in the school prior to the attack. Many locals assumed this occurred under the guise of construction conducted the previous summer (Giduck 2005, 238; Phillips 2007, 251). Because this assumption cannot be ruled out, and such a tactic could be replicated on an American school, this study's model includes pre-attack activities similar to those used at Beslan. This model assumes threat individuals will attempt to gain access to the subject school for purposes of reconnaissance and staging weapons for later use.

How terrorists gained access to School Number One was also a critical component of how the attack took place. Vehicles loaded with personnel and weapons drove up to the school building where terrorists dismounted and quickly overwhelmed

students, staff, and parents gathered on the grounds (Giduck 2005, 115). Even though School Number One was surrounded by walls it was not secured enough to have prevented easy access to the grounds and building (Giduck 2005, 145). The model for this study includes vehicles used to approach the subject school from the southeast where terrorists quickly dismount and begin their attack.

Timing of the attack on School Number One significantly contributed to the terrorists' success. That day, the school and its grounds were full of students, staff, and parents providing the terrorists a target with a maximum number of potential victims. Since it was the first day of the school year (Dorn and Dorn 2005, 41; Dunlop 2006, 22; Giduck 2005, 111, U.S. Army 2007, 6-18) it can be assumed the staff had not yet taken responsibility for their students nor had they been able to practice emergency procedures. For these reasons the model for this study includes an attack occurring on the subject school on the first day of the school year in the early morning to take advantage of lack of organization and preparedness.

The manner in which the terrorists controlled hostages prior to the attack contributed to their success. By attacking rapidly and violently from one end of the school and forcing students, staff, and parents into the gymnasium at the other end, they caused mass confusion that facilitated the victims' capture. Most of the school's occupants were quickly surrounded and forced into the gymnasium where they were secured until Russian security forces assaulted the building three days later. Others who attempted to hide in the school were also captured, while some who attempted to flee the area were shot doing so (Giduck 2005, 116-117; Phillips 2007, 44). The model for this

study consists of a rapid and violent attack overwhelming subject school students, staff, and parents and securing them in the gymnasium (see figure 4).

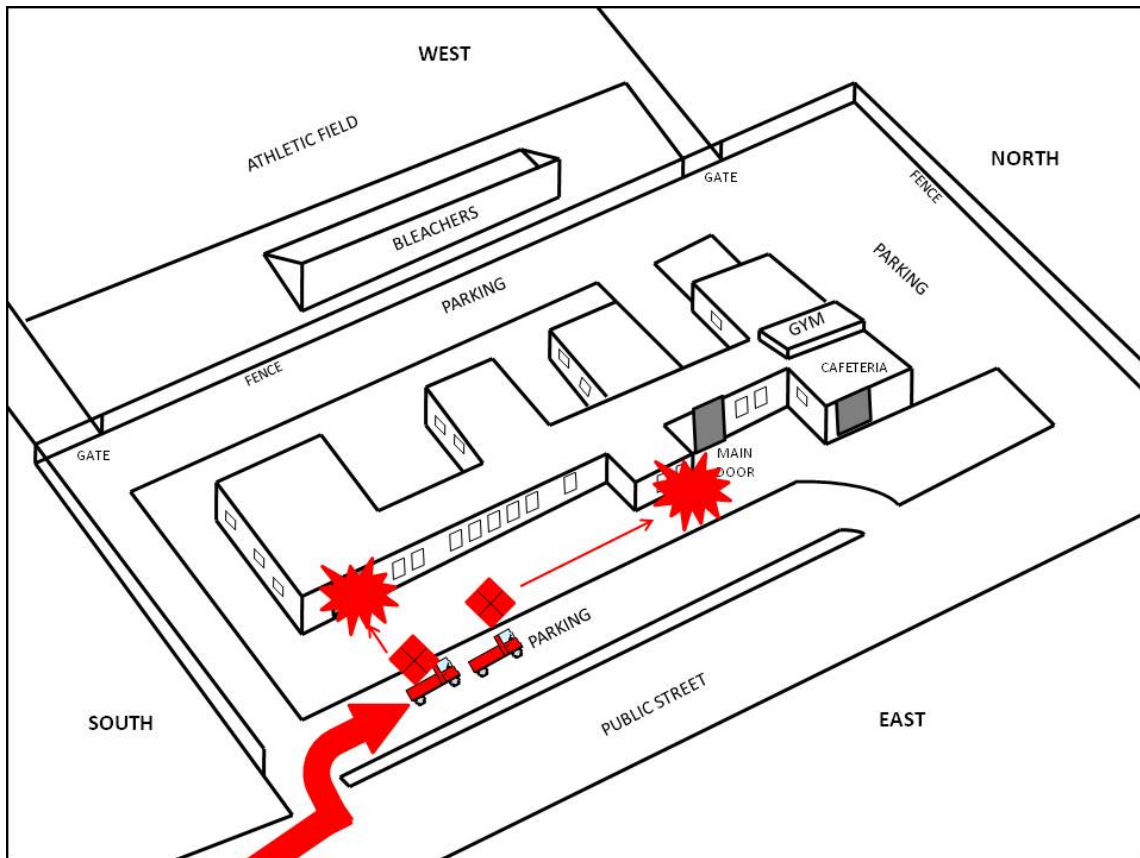


Figure 4. Hypothetical Attack on Subject School

In summary, the model used in this study of an attack taking place on the subject school has four characteristics. First, disguised terrorists surveil the Subject School prior to the attack in order to learn the building's design and to cache weapons. Second, vehicles approach the building from the southeast and terrorists dismount on school grounds. Third, the attack occurs on the first day of school to take advantage of the

inability of school personnel to respond according to practiced or rehearsed emergency procedures. Finally, the attack is initiated violently to maximize confusion and terror with the intent of forcing hostages into the subject school gymnasium at the north end of the building (see figure 4). With this model in place the study examines which anti-terrorism mitigations are relevant for preventing and preparing for such an attack.

Recommended Mitigations

What terrorism vulnerability mitigations are recommended by National leaders to protect U.S. schools from an attack similar to Beslan? Recommended mitigations used to prevent and prepare for an attack similar to the one that took place in Beslan draw from recommendations by school security and counter terrorism experts presented in Chapter 2. A key mitigation recommended by U.S. Department of Education Deputy Secretary Eugene Hickok is for schools to implement closed campuses (2004). This entails surrounding the subject school with walls and controlling pedestrian and vehicular access to the grounds. Identification is presented at entry control points (ECP) by anyone attempting to enter the school grounds. Every staff and parent automobile, bus, and delivery vehicle is subject to search prior to being allowed near the school (Green 1999; Dorn et al. 2004, 83). The subject school would establish one entry control point at the southeast entrance and vehicles would exit from two locations at the north end of the campus. (see figure 5)

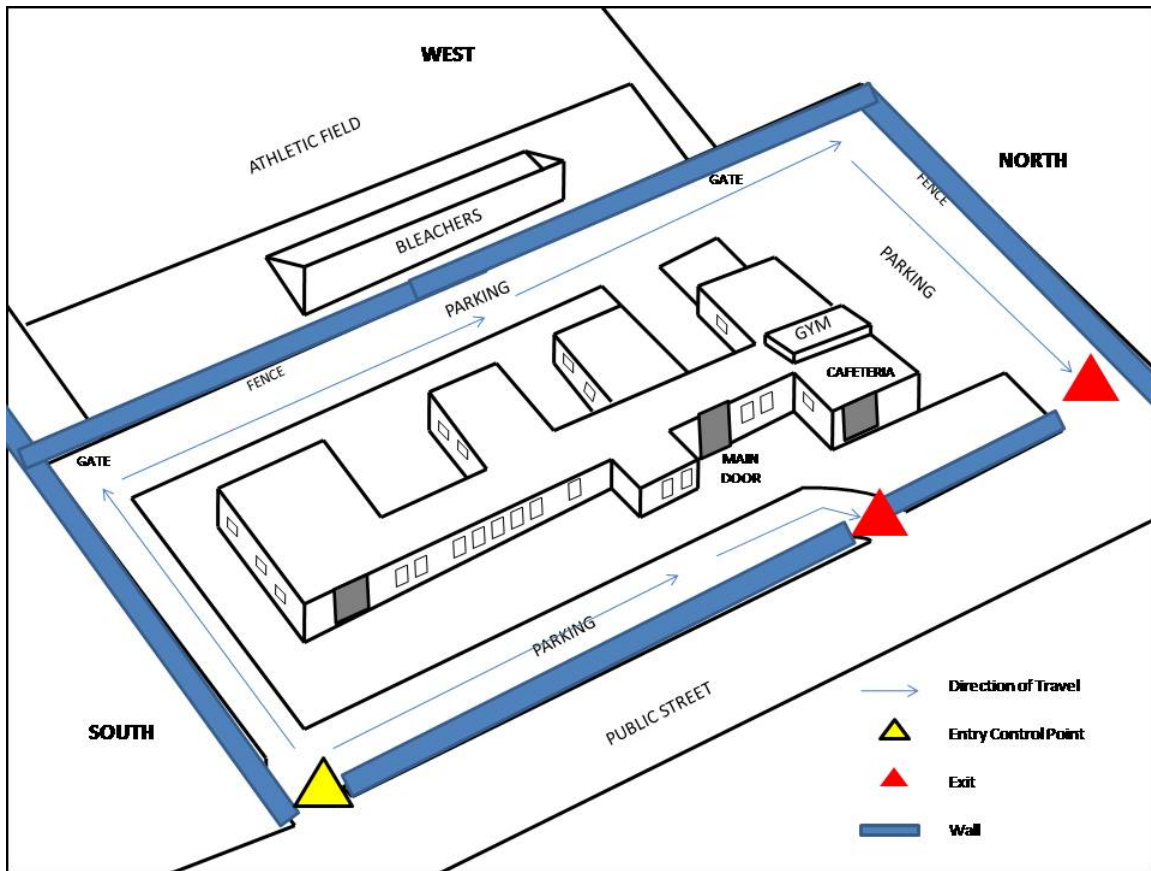


Figure 5. Subject School Closed Campus

Michael Dorn advocates schools adopt inner perimeter access measures to control access to specific parts of the building. Parents on campus for a meeting need to be granted access to meeting rooms but prevented from access to classrooms (Dorn and Dorn 2005, 47). Delivery and maintenance personnel need access to specific parts of the building but kept separate from areas where students are. To accomplish this Dorn recommends schools provide access badges for all visitors. These badges identify school visitors as someone who has coordinated access with the office and has been screened regarding their need to access the building (Dorn et al. 2004, 82-83). The subject school currently uses a visitor badge system where visitors are asked to sign in before obtaining

temporary identification. Badges are worn on lanyards around the visitor's neck so they can easily be seen. Anyone seen in the building not wearing a badge is referred back to the office to sign in. For purposes of this study the subject school will keep this system in place but also require visitors to surrender government issued photo identification to receive a badge.

Homeland Security expert John Giduck, who conducted detailed interviews and analysis related to the Beslan attack, advocates armed security teams as a mitigation for preventing such an attack in the U.S. Such a team could consist of three to five individuals trained in military tactics armed with lethal and non-lethal weapons, including automatic weapons (Giduck 2005, 286-288). The purpose of such a team is to disrupt a terrorist attack long enough for students, staff, and parents to respond appropriately and evacuate the building safely. The subject district does have a single School Resource Officer (SRO) located at the high school who is frequently called to the subject school. While the SRO has been a valuable resource for addressing low-level threats he is not capable of engaging terrorists with sufficient lethal force. The subject school would establish one security team consisting of three individuals each with military training and armed with 9mm pistols, M-4 5.56mm rifles, and one M249 Squad Automatic Weapon.

In reviewing the actions of those present at Beslan it is clear that individuals who evacuated school grounds immediately upon identifying the threat were more likely to survive injury than those who remained and were taken hostage. School security expert Michael Dorn, along with various others, recommends that schools develop evacuation procedures to prepare for crises (Dorn et al. 2004, 147-154; National School Security Center 2004, 9; Phinney 2004, 11-48; Ruffini 2006, 176). Such procedures are included

in an all-hazards approach to crisis preparedness as they apply to a variety of situations to include an attack similar to the one that occurred in Beslan. Dorn recommends schools prepare to conduct off-site evacuations to predetermined locations away from the school and the existing hazard (Dorn et al. 2004, 40). The subject school has a pre-planned evacuation staging site located at an elementary school one-half mile west of the building (Subject District 2007, 29). In accordance with the existing Crisis Intervention Procedure Guide individuals in and around the school will be directed to move immediately to this location once the attack has begun.

Actions conducted during a crisis must be rehearsed in order to ensure all individuals affected are familiar with procedures and resources are available. Failure to rehearse an appropriate response to a terrorist attack appears to have aggravated confusion throughout the crowd at Beslan. The subject school did conduct an off-site evacuation in December 2007 when the cause of a fire alarm could not be determined. Administrators directed staff members to escort students off campus to the high school until the situation was resolved. The high school is not a predetermined evacuation site as described in the Subject District Crisis Intervention Procedure Guide. However, according to interview participants any future off-site evacuation would rely on lessons learned during the December 2007 event. A more detailed off-site evacuation drill to the elementary school identified in the district crisis plan requires time to prepare and execute. For purposes of this study the subject school will conduct an off-site evacuation drill to the designated elementary school prior to the end of the current school year.

Michael Dorn also suggested that schools take active measures to conduct background checks on anyone having access to children including, specifically, school

employees, volunteers, and contracted workers. The subject district currently requires all employees to undergo background checks. However, as discovered during the site survey, school volunteers and contracted workers are only required to sign in through the subject school office. For purposes of this study the subject school will also require volunteers and contracted workers to undergo background checks in order to be granted unrestricted access to the building.

Some school security experts suggest school and law enforcement officials collaborate to develop procedures and techniques not only for preventing or preparing for a terrorist attack but also for responding to it. John Giduck advocates creating tactical videotapes prior to an attack to be given to law enforcement for use during a crisis (Giduck 2005, 179-180; Ruffini 2006, 180). Such a tape would enable detailed building layout analysis not available on two-dimensional maps. Because this anti-terrorism measure would be used during the response phase it is beyond this study's scope. However, coordinating with law enforcement to create the video would be prior to the attack and is therefore considered a preparation technique. The subject school currently has plans to label doors and windows from the outside to assist law enforcement in identifying specific parts of the building. For purposes of this study a tactical videotape would be made displaying hallway configurations, door locations, and classroom interiors. This tape would be secured at the subject community's law enforcement facility.

In summary, the subject school will implement six anti-terrorism mitigations to prepare and mitigate for the theoretical attack designed earlier:

1. a closed campus system will secure the school grounds and inner school perimeter by requiring visitors to sign in with the office and receive a badge;
2. a three person security team armed with automatic weapons will function as a disrupting force allowing students, staff, and parents time to evacuate;
3. students, staff, and parents will immediately evacuate to an elementary school one-half mile west of the subject school;
4. procedures for conducting such an off-site evacuation will be rehearsed in the spring of the school year prior to the attack;
5. background checks will be conducted on anyone requiring unsupervised access to students on school grounds; and
6. tactical videotaping will be conducted prior to the attack to provide law enforcement responders with detailed views of the subject school configuration.

These mitigations are examined in the next section for their affect on the subject school's financial expenditures, instruction ability, and school climate.

Impact on Subject School

How are schools affected by terrorism vulnerability mitigations with regard to financial costs, instructional impacts, and school climate changes? How anti-terrorism mitigations described in the previous section impact the subject school is determined by examining responses given by subject school staff members participating in unstructured interviews. A site assessment designed by Safe Havens International (Dorn et al. 2004, 326-331) was also used to analyze impacts on the subject school beyond interview respondents' abilities to determine. These impacts are addressed here first in terms of projected costs to implement the given anti-terrorism mitigations, second with regard to

how classroom instruction is impacted, and finally with respect to how the school's climate is changed.

Financial Costs

Complete costs can only be fully calculated once engineering specifications and scopes of work are developed. Bids and proposals would be submitted to the subject district before contracts could be signed. Therefore, costs estimated by interview participants are used in this study. When necessary, these costs were confirmed with the subject district's director of operation who would oversee much of the new construction and material acquisition.

As expected the subject school administration provided the greatest insight as to costs associated with identified anti-terrorism measures. The principal estimated that creating a closed campus system complete with walls and traffic control points would cost between \$500,000 and \$700,000. She further predicted annual operations and maintenance costs of \$100,000, including up to \$60,000 per year for each security guard required. The office secretary felt a closed campus may cause teachers to be fearful of security and be absent more frequently. She estimated the school would see an additional 50 days each year when substitute teachers would be required. The subject district currently pays substitute teachers \$85 per day (Subject District).

Inner perimeter controls would not be as expensive, yet the subject district has already identified shortcomings in the subject school's ability to control access to student areas. Presently, the office is positioned alongside normal traffic routes as visitors enter the main door. Nearly every respondent commented about the ease with which individuals are able to enter the building and walk past the office without checking in.

Both the principal and assistant principal referred to a new high school bond election held this year which includes \$30,000 to remodel the subject school's office making access control easier. Another cost associated with inner perimeter security would be to ensure accurate key accountability. During previous years, according to the Assistant Principal, exterior door keys have been given to community members without ensuring they were properly accounted for. To ensure inner perimeter security, he went on to say, could require \$3000 or more. He also believes badges, lanyards, and sign in sheets would cost \$50.

Half of the District School Resource Officer's position is funded by the school district and half by the city. The principal expects a similar financial arrangement in funding a three person security team but still felt that associated costs would be prohibitive because of salaries, training, and psychological evaluations. She believes each team member would cost \$60,000 each leaving the district with a \$30,000 share. Equipping and arming team members were not addressed by any respondent; however, the district's director of operations confirmed \$50,000 to be a reasonable estimate for uniforms, personal protective equipment, communication devices, and weapons.

The only costs identified to conduct evacuation drills would be in providing teachers with binders containing evacuation instructions. The assistant principal stated this could be done for \$500. Although not identified as a cost, nearly every respondent referred to difficulty controlling the December 2007 off-site evacuation to the high school and the need for improved communication ability. Should they be deemed necessary, hand-held radios would require additional funds which the director of operations

confirmed could be \$500. Staff time required to develop and coordinate evacuation plans was not identified as a cost but obviously would be.

Conducting background checks on every individual gaining unsupervised access to the school would also require funding. The principal stated the type of background check currently performed by the subject district costs \$5,000 each. She estimated such a mitigation would require background checks on 150-200 individuals totaling \$750,000 to \$1 million. It is expected these costs would be on-going as new background checks would be needed each year for new hires and volunteers.

Costs associated with tactical videotaping were not identified by any respondent. Though insignificant when compared to more expensive measures, funding would still be required to purchase a video camera if one were not already available, media for storage, and staff time required to prepare the recording.

Assuming costs associated with the identified anti-terrorism measures are accurate first year start-up costs would exceed \$1.9 million (see table 1). This represents more than 14 percent of general fund expenditures for the entire district and would require a 24 mil increase in property taxes across the district (Subject District). With annual operation and maintenance costs including salaries it is conceivable the identified anti-terrorism measures would continue to cost \$250,000 every year.

Table 1. Identified Anti-Terrorism Measures Costs					
Mitigation	Item	Unit	Number Required	Cost Each	Total Cost
Closed Campus	Walls and ECP	ea	1	\$700,000	\$700,000
	Annual O/M	ea	1	\$100,000	\$100,000
	Substitutes	ea	50	\$85	\$4,250
Inner Perimeter	Office Remodel	ea	1	\$30,000	\$30,000
	Building Re-key	ea	1	\$3,000	\$3,000
	Badges/Lanyards	ea	1	\$50	\$50
Security Team	Security Officer	ea	3	\$30,000	\$90,000
	Weapons/Equipment	ea	1	\$50,000	\$50,000
Evacuation Drills	Procedure Binders	ea	1	\$500	\$500
	Radios	ea	1	\$500	\$500
Background Checks	Background Checks	ea	200	\$5,000	\$1,000,000
Total Costs					\$1,978,300
Subject District 2006 General Fund Expenditures					\$13,896,150
Percent of General Fund Required to Prepare Subject School					14%

* Requires additional O/M funding annually

Instructional Impacts

A school's primary function is to educate children. Therefore, it is common for education professionals to view with disdain any characteristic injected into the school environment that negatively affects students' abilities to learn. However, as the assistant principal stated, "The basis of a successful learning environment is making the kids feel safe." This section examines interview respondents' views on how identified anti-terrorism mitigations would impact their instruction abilities.

When asked about a closed campus mitigation all four teachers interviewed stated their instruction would not be greatly impacted. The language arts teacher felt initially student behaviors would change forcing her to "deal with that" first before she could teach. Both administrators felt school start times would be impacted as 200 vehicles

attempted to access to the school grounds each day. The math and special education teachers both implied a need to arrive earlier each day could result in less attentive students. However, they also felt students and staff would eventually adjust to the new security measure.

The language arts teacher stated conducting evacuation drills would take time away from class instruction. The science teacher also expressed concern that such drills would result in increased complaints, presumably from students, staff, and parents. It is assumed these complaints would result from disruptions in instruction time. He also stated time required to conduct such a drill would detract from mandated standardized testing were they to take place simultaneously although this could easily be prevented with proper scheduling.

All teachers felt that conducting background checks would not affect their instruction as doing so would take place at the administrative level and be transparent to them. The principal did comment that conducting background checks might reduce the number of parent volunteers who felt the school did not trust them. This implies fewer adults in classrooms to assist with student learning.

While no respondent felt armed security teams would impact instruction two felt eventually team members would be used to assist school staff in other activities. Assisting with difficult meetings and tutoring students would be encouraged in a school trying to maximize personnel resources. "I can see them in the classroom helping out," stated the assistant principal. Such a redirecting of the security team's focus would have positive impacts on instruction; however, it would undermine the team's ability to respond to a crisis situation which it is designed for.

Inner perimeter access controls and tactical videotaping were not found to negatively impact instruction by any participant.

In general, the respondents felt the identified anti-terrorism measures would not significantly impact their ability to instruct students. Time required to adhere to such measures was presented as the primary obstacle which could be overcome with restructured scheduling, patience, and familiarity. Most respondents agreed the safe environment created by the identified measures would allow students and staff to feel safer and thus positively impact their ability to teach. This safe environment, translated into school climate, is examined in the next section.

School Climate

School climate refers to the “attitude of the organization.” More specifically it is the “collective mood, or morale, of a” school (Gruenert 2008, 57). This section examines how the subject school’s climate is impacted as the identified anti-terrorism mitigations are put in place.

The principal stated that aesthetical problems associated with a closed campus approach would be viewed very negatively by students, staff, and parents. She and others described this measure as resembling a prison setting. Both she and the assistant principal predicted long lines of vehicles attempting to enter school grounds each morning. The language arts teacher expressed concern that “compresses[ing] a population” would increase inappropriate behaviors among students. She predicted students being frightened and seeking attention in negative ways. “It sounds very uncomfortable to me,” she concluded. The principal’s secretary, whose children attended the subject school, believes parents may attempt to remove their children from the school. “They would feel like they

were losing control,” she stated. The science, math, and special education teachers all felt a closed campus would be more tolerable if the threat were more immediate. “Schools are still the safest places,” stated the science teacher. “If it got to that point [closed campus] we would need to educate in some other way.”

Strengthening inner perimeter security appears to have the greatest impact on school staff. Interview participants reported visitors who bypass the office and fail to receive a badge are supposed to be redirected back to the office to sign in. Nearly all respondents agreed that this does not happen consistently because the staff feels uncomfortable confronting someone without a badge. “Our biggest problem is that [staff] challenge unless they know who that person is and then they won’t challenge,” stated the principal. The assistant principal and three teachers all commented that if an individual does not appear threatening he or she rarely gets challenged for not having a visitor’s badge. The math teacher thinks teachers are intimidated. “I know parents get irritated [when challenged] so in the future the teacher just won’t ask,” she admitted. The custodian stated that she often does speak with visitors and finds many are lost and unsure of procedures for signing in. The assistant principal believes teachers need to be educated and made to feel part of the security team. “They are our eyes out there. They are our second line of defense.”

Respondent opinions regarding armed security teams varied. The principal, language arts, and special education teachers felt students would be scared. According to the principal many students are already afraid of their peers and come from unsafe homes. To have armed security personnel in the school may make some students feel “they had no safe place.” The language arts teacher predicted “a climate of fear.” The

science teacher and custodian commented that challenging such a team may be exciting for students. However, the assistant principal and principal's secretary remarked that students and staff would feel safer knowing the team was there to protect them. "It would be intimidating for anyone thinking about doing something," stated the assistant principal. "The visual would make people stop and think."

All respondents highlighted the need to conduct off-site evacuation drills in order to reduce confusion during a real crisis. Even though students and staff conducted an off-site evacuation this year most teachers admitted that in a real crisis situation they still would not know what to do. The principal believes teachers would instinctively lockdown their classrooms instead of evacuating. The language arts teacher agrees. "If we had to evacuate the area, that needs some work." The special education teacher expressed concern for students with autism and physical disabilities. "We just don't know how they are going to respond." Even though all respondents agreed with the need to conduct such a drill difficulties with previous events lead many to question a drill's efficacy. Both the language arts and special education teachers stated during drills students fail to take them seriously. The assistant principal explained this lack of seriousness also extends to the staff. During the school's evacuation to the high school some staff remained in the building believing it was a false alarm. Others drove their own vehicles instead of supervising students. The science teacher believes the drill would require realistic injects such as a "mock gunman" to emphasize the danger. "I think we would have a bunch of innocent people here caught."

Conducting background checks on everyone having access to students was not reported to impact climate within the school. Most respondents saw this as a positive

mitigation believing people who have nothing to hide should not have a problem with it. Both administrators commented that some people may feel as though the school does not trust them and refuse to participate. Generally though, background checks were believed to enhance the safe school climate.

Nor did any respondent feel tactical videotaping would affect school climate. Similar to the process of labeling windows and doors, a process recommended by law enforcement and already being implemented, tactical videotaping would be transparent to most people within the school and therefore have little impact on school climate.

In general, respondents acknowledged the identified anti-terrorism mitigations would lead to a safer environment. However, distrust, fear, and confusion were identified as resulting from these same security measures. The assistant principal and support staff appear to be less concerned with negative climate changes than with the secure feeling created. The principal and classroom teachers, while recognizing the need for security, seem to be most concerned with how these anti-terrorism measures would damage school climate.

Primary Research Question

What anti-terrorism measures would be feasible, suitable, and acceptable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia? Overall, mitigating against a terrorist attack at the subject school would have the greatest impacts on financial cost and school climate. Instruction would only be marginally impacted. Costs in infrastructure, personnel, and equipment would be substantial and require revenue sources beyond the community's means. A willingness to redirect resources away from their intended purpose could result in degradation of

security designs. Increased attention in ensuring unauthorized individuals do not gain access to students could damage the sense of openness school strive for. Time spent planning and conducting security procedures could detract from instruction opportunities. Finally, although the school would be more secure many staff members believe school climate would evolve into one of distrust, fear, and confusion. Behaviors exhibited by students, staff, and parents may become more challenging should mitigations become oppressively authoritative.

Summary

Respondents agree that should a terrorist threat become more immediate such anti-terrorism mitigations would obviously be required. Yet, in the current low-threat setting many focus primarily on negative impacts such security measures present. The next chapter makes recommendations for security measures the subject school can emplace that are feasible, suitable, and acceptable. It also identifies additional concerns as well as areas for further research.

CHAPTER FIVE

FINDINGS AND RECOMMENDATIONS

Senior experts from the military and law enforcement communities agreed that superintendents, principals, and others in charge carry “by name accountability.” This means that parents and members of the school community will specifically hold individuals in these positions responsible for the prevention and effective management of incidents. (2004, 7)

National Strategy Forum,
*School Safety in the 21st Century:
Adapting to New Security Challenges Post 9.11*

This study applies characteristics of the 2004 Beslan school attack to a hypothetical attack on an American school. Its purpose is to determine which anti-terrorism measures recommended by national leaders are feasible, acceptable, and suitable to implement in an American school to protect its students from such an attack. This study results in recommendations for school officials to implement as well as suggestions for further research.

Chapter Five applies data analysis from Chapter Four to answer the study’s primary research question. It determines which of the identified anti-terrorism measures are feasible, acceptable, and suitable for protecting the subject school in a hypothetical terrorist attack. An anti-terrorism measure was found to be *feasible* if it was able to accomplish its task “within the available time, space, and resources” (US Army 2005, 3-29). A measure was found to be *acceptable* if the advantage gained by implementing the measure “justify[ied] the cost in resources, especially casualties” (US Army 2005, 3-29). An anti-terrorism measure was assessed to be *suitable* if it could accomplish its task (US Army 2005, 3-29). This chapter makes recommendations for subject school officials to

help determine which anti-terrorism measure should be implemented based on the data. Chapter Five concludes with areas suggested for further study.

Findings

What anti-terrorism measures would be feasible, suitable, and acceptable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia? Using the 2004 terrorist attack in Beslan, Russia as a model six anti-terrorism measures were identified for use in protecting an American school from a similar attack. Research conducted at a subject school obtained data to determine how these measures would impact the selected school. Results derived from this research determine which measures are feasible, suitable, and acceptable in providing that protection.

A closed campus approach is designed to restrict vehicle and pedestrian access to the school's grounds. Such a measure is not *feasible* due to the significant costs associated with constructing barriers and hiring security staff for enforcement. Annual operation and maintenance costs also add to the expense. A closed campus measure is also not an *acceptable* anti-terrorism measure. Costs could not be justified and based on interview participants' responses students, staff, and parents would oppose its implementation without a specific and legitimate threat making a closed campus necessary. This measure is *suitable* as it would present the school as a hardened target and force a terrorist attack to initiate farther from the school. Such an attack would be deterred or mitigated by allowing greater reaction time for those on the school's grounds.

Inner-perimeter access controls are designed to restrict access to the school's interior. Visitors would be required to report in with the office, provide identification, and sign in before being allowed into student areas. This measure is *feasible* as it can be

accomplished with resources already available to the school or at marginal cost. It is dependent on the school's physical arrangement being capable of intercepting visitors before they can access the remainder of the building. Access control also requires school officials to account for and control exterior door keys. Access controls are also *acceptable*. Occasional challenges to signing in and receiving visitor badges exist. Complete staff cooperation in enforcement is not guaranteed. Yet, with training and administrative oversight such a security measure would become tolerable. Inner-perimeter access controls are suitable as they would limit a terrorist's ability to surveil the building's interior and to cache weapons for a subsequent attack.

Armed security teams are designed to use small arms fire to disrupt a terrorist attack forcing premature deployment and slowing the attackers' tempo. This measure is not *feasible* as financial costs associated with its implementation exceed a school's resources. Security teams are also not *acceptable* due to this financial burden and the potential increase in fear they would create among the school's population. Collateral damage created by the team endangers the entire community (see Appendix D). An armed security team would only be *suitable* if it were positioned at a point where a terrorist attack initiates. Coupled with a closed campus approach this could be achieved by locating the team near the school's entry control point. However, with an open campus a terrorist attack could begin at various points decreasing the likelihood the security team could promptly engage the terrorists. Also, as predicted by the subject school assistant principal, the school's need to maximize the use of personnel could result in team members being tasked additional duties jeopardizing their ability to perform their security mission.

Off-site evacuation drills are designed to identify a location away from the school to which students, staff, and parents can move to escape the danger of a terrorist attack. Rehearsing this evacuation would train the school's population how to respond to avoid danger. This measure is *feasible* as procedures could be developed with minimal resources and rehearsed in a few hours. These drills are also *acceptable* as the time and resources required would have no significant impact on the school. Off-site evacuation drills are also *suitable* as fleeing the danger area once an attack commences would be effective in decreasing the number of people caught in the terrorists' kill zone or taken hostage.

Conducting background checks on all individuals having unrestricted access to the building attempts to screen those with any connection to terrorists. This measure is *feasible* although it would require financial resources beyond the school's budget. Background checks are deemed to be *acceptable* as procedures to complete them are already in place. The school may receive fewer parent volunteers and contractors as a result. This would work to the school's favor by eliminating many individuals who have blemished records and should not be granted unrestricted access to the school. Background checks are *suitable* in preventing a terrorist attack. However, reviewing an individual's records cannot guarantee existing links to terrorism will be discovered. Such a measure would be effective in deterring an individual who is unsure what a records review would uncover.

Finally, tactical videotaping is designed to record detailed information regarding the school's interior and exterior design. Immediately following a terrorist attack emergency responders would use this tape in developing a response plan. Creating a

tactical videotape is *feasible* as it can easily be accomplished given resources the school has available. Videotaping is also *acceptable* as it would be transparent to most individuals outside the school's administration. This measure is also *suitable* as it would provide invaluable information for emergency responders not available via any other media.

Of the six identified anti-terrorism measures most are feasible, acceptable, and suitable in protecting an American school from an attack similar to the one that occurred in Beslan, Russia (see table 2). A closed campus approach and armed security teams are not *feasible* primarily due to their financial costs. Nor are these two measures found to be acceptable because of resources required, negative impact on school climate, and potential for collateral damage. While all six measures were assessed to be *suitable* in protecting a school caveats are placed on two. An armed security team would have to be positioned at the terrorists' point of attack to be considered suitable. Also, background checks offer only limited assurance an individual is not connected to a terrorist group. Recommendations regarding which anti-terrorism measures school officials should implement are discussed in the following section.

Table 2. Anti-Terrorism Measures Assessment			
<i>Anti-Terrorism Measure</i>	<i>Feasible</i>	<i>Acceptable</i>	<i>Suitable</i>
Closed Campus	No	No	Yes
Inner-Perimeter Controls	Yes	Yes	Yes
Armed Security Teams	No	No	Limited
Off-site Evacuation Drills	Yes	Yes	Yes
Background Checks	Yes	Yes	Limited
Tactical Videotaping	Yes	Yes	Yes

Recommendations for Action

Based on their feasibility, acceptability, and suitability in protecting students from a terrorist attack similar to Beslan the researcher recommends the subject school implement four of the six identified anti-terrorism measures. Two others, while suitable, are neither feasible nor acceptable given the current threat level against the school.

Inner-perimeter access controls should be continued and improved. Visitors should submit government issued photo identification before signing in and receiving visitor badges. Enhancements in the school's office physical arrangement, already programmed for future remodel, must be carried out as should improvements in exterior door key control. Off-site evacuation procedures must be developed and rehearsed with the school's population. Such a location is already identified in the subject district's crisis management plan (Subject District 2007) yet practicing an evacuation has not been accomplished. The one evacuation conducted this past year to the high school was

insufficient. Relying on this single evacuation to a location other than one identified in the subject school's crisis plan, with limited cooperation from staff and students, could create addition confusion. Background checks should be conducted on any adult requiring unrestricted access to the subject school. While this does not guarantee student safety it is both a feasible and acceptable method of vetting individuals who should not have access to students. Finally, tactically videotaping the building's interior and exterior should be conducted. This can be accomplished with minimal effort and resources. In the hands of emergency responders this videotape would be invaluable in preparing an appropriate response to a terrorist attack.

These four recommended measures also support the subject school's ability to provide all-hazard protection to students. Access controls, evacuation drills, background checks, and tactical videotaping would all be useful in preventing or preparing for crisis situations other than a terrorist attack. Taking an all-hazard approach makes efficient use of the subject school's resources in protecting students and providing a safe learning environment.

The researcher does not recommend the subject school implement a closed campus approach nor create armed security teams to protect students. Significant financial costs associated with both measures prohibit the subject school from being able to afford their implementation. Should revenue sources outside the community be made available these anti-terrorism measures would prove feasible. However, impacts on the school's climate and community safety would require acceptance on the part of students, staff, and parents. This would only be brought about should a terrorist threat become more immediate and mitigations created to limit the danger to the surrounding area.

Recommendations for Further Study

By design this study is limited in its scope. Additional study in protecting schools from terrorism is recommended to assess levels of public acceptance toward anti-terrorism measures, to extend analysis to other schools' settings, and to explore ways to implement a tactical mindset among school personnel.

While this study predicts how parents may receive the identified security measures, it is only done through the perceptions of the subject school's staff. Further research may find that parents and community members do not possess the attitudes predicted in this study. That could dramatically impact acceptability of a closed campus approach and armed security teams.

Clearly, the subject school is unlike thousands of other American schools. Similarities exist but differences in size, students' ages, physical design, and surrounding community make comparisons with all American schools impossible. What is needed is additional research on schools of varied characteristics and demographics. Individual schools across the country should conduct similar building-specific research to assess what is relevant to their particular setting. Only then will school officials be provided with valid information regarding the impacts anti-terrorism measures would have on their schools.

Finally, one unanticipated theme to come out of interviews conducted with the subject school's staff was the universal belief that in the initial moments of a terrorist attack students and staff would not know what to do. Even a few seconds hesitation could mean the difference between a teacher and his or her students making it to safety or becoming victims. Were the school on fire it is reasonable to believe most people would

see flames and evacuate the building. In a terrorist situation, some would instinctively flee, some would seek shelter inside the school, and some would not know what to do until a terrorist pointed a weapon at them. These same behaviors were witnessed at Beslan. Additional research is required to determine how schools can instill a “tactical mindset” (Ruffini 2006, 176-77) in students and staff. When is it appropriate to shelter inside the school and when is it correct to evacuate away from the school? How do students and staff make a decision to evacuate when they rely on school officials in the office to make such a decision? Perhaps, as in the scenario presented in Chapter Four, office personnel may not be in a position to determine the proper course of action. An all-hazard approach to crisis management requires various reactions from students and staff. Further research in this area may develop methods to train staff to immediately determine which reaction is appropriate for which crisis. Then, both students and staff can exercise initiative in conducting an appropriate response to a dangerous situation.

GLOSSARY

Acceptable. The advantage gained by executing a course of action “justify[ies] the cost in resources, especially casualties. This assessment is largely subjective” (US Army 2005, 3-29).

Disrupt. “A tactical mission task in which a commander integrates direct and indirect fires, terrain, and obstacles to upset an enemy’s formation or tempo, interrupt his timetable, or cause his forces to commit prematurely or attack in a piecemeal fashion” (US Army 2004, 1-63).

Emergency Responder. Trained individuals who through organized actions, assist in controlling and/or reducing the level of damage, injury, and associated human suffering that has or could have resulted from an emergency incident. This includes, but is not limited to: law enforcement, fire/rescue, medical response, public works, and emergency management.

Faculty. Employees of a school or school district, separate from school officials and staff, charged with carrying out the school’s instructional tasks. Faculty is generally made up of teachers and counselors.

Feasible. A course of action has the ability to accomplish an assigned task “within the available time, space, and resources” (US Army 2005, 3-29).

Law Enforcement. Agents or agencies empowered to enforce the law and to affect public and social order through the legitimate use of force. This includes local, state, and national agencies.

Mitigation. “Involves efforts to minimize the negative impact of those events that cannot be prevented or occur despite prevention efforts” (Dorn et al. 2004, 5). Together with “prevention” makes up the first phase of emergency management (US Department of Homeland Security 2004, 2).

Preparedness. “Assumes that a risk may eventually result in an incident and then allocates resources to reduce its impact” (Dorn et al. 2004, 5). Is the second phase of emergency management (US Department of Homeland Security 2004, 2).

Prevention. “Attempts to deflect crises before they occur by reducing the risks involved to the greatest extent possible” (Dorn et al. 2004, 5). Together with “mitigation” makes up the first phase of emergency management (US Department of Homeland Security 2004, 2).

School Climate. The “attitude . . . collective mood, or morale, of a” school (Gruenert 2008, 57).

School Officials. Agents of the school district empowered to set policy for a school and/or school district. This includes board of education members, superintendents, and principals.

Staff. All employees of a school charged with carrying out the school's mission. Staff is made up of, but not limited to, administrators, faculty, custodians, food service workers, maintenance personnel, school resource officers, nurses, and secretaries.

Student. Any person on school grounds whose role is to receive instruction and for which school officials act in *loco parentis* at the time a terrorist incident occurs. While students are generally minors, some students have reached adult age prior to graduation.

Subject School. American middle school selected for comparison to Beslan School Number One in this study.

Suitable. A course of action can accomplish its intended task (US Army 2005, 3-29).

APPENDIX A

SUBJECT SCHOOL SITE SURVEY

UPON ARRIVAL ON THE PROPERTY			
Is the main entrance for visitors arriving in vehicles obvious to people who have never visited the school?	Yes		
Is there additional informational signage as appropriate on the roads around the perimeter of the buildings? (Ex. "Visitors Parking Area," "Drug Free and Weapons Free Zone," "All Visitors Must Report to the Office,"	Yes		Visitor Parking, Drug Free School, Visitors report to office
Does exterior drive signage direct visitors to their		No	Visitors could drive behind building
Are visitor's parking areas within view of office staff?	Yes		But not easily observed
Are all shrubs trimmed so as to allow maximum visibility? (Shrubs to a three-foot height and low-	Yes		
Are numbered parking spaces used to help prevent a trespasser from parking in a regular parking space?		No	
Are there speed breakers on the main entrance road and		No	
Are all vehicles (other than buses) restricted from entering the bus loading and unloading areas during		No	
Are the visitor's parking spaces clearly identified?	Yes		Signage
Is the main office area clearly marked?		No	Upon entering building office not clearly
Is there a designated pickup/drop-off area for students?		No	
Are all parking spaces, directional arrows, no parking zones, handicap-parking zones, fire zones, and restricted areas clearly visible to first time visitors to the school?		No	
Are staff parking spaces marked anonymously so that an attacker cannot easily locate their victims? (For example, if someone does not know the principal by sight and wants to attack them, they can simply wait near			NA - no marking. Administrators park in service area between wings of building
Is there adequate operational space for emergency response vehicles at the entrance?	Yes		

SCHOOL GROUNDS			
Perimeter Fencing			
Type: 6 foot high chain link on three sides			
Number of access points onto campus: 5 (two are gated from athletic fields			
Security at Entrance Points:		No	
Are trash dumpsters positioned in a location which so as not to block line of sight to critical areas?	Yes		
Are portable classroom buildings positioned in a manner to reduce excessive blind spots?			
Are the campus grounds clean?	Yes		
Are there any noticeable blockages for line of sight on	Yes		Utility boxes block observation of main
Are staff and/or faculty on duty in parking lots during the			
Is there video surveillance in parking lots?		No	
Is there adequate lighting in all lots?	Yes		
Presence of graffiti on walls/outbuildings:		No	
Outside pay phone or emergency call boxes:	Yes		
Designated after hour student pick-up area		No	

SCHOOL GROUNDS			
Any obstructions that would impede emergency vehicles:		No	
Are all construction areas restricted to student use and			NA
Are all construction tools and materials secured at the end of the day and construction debris cleared?			NA
Are doors to internal courtyards kept secure?		No	One utility door is left unlocked
Visitor Directional Signage?	Yes		
Is consent to search of vehicle signage located at each		No	
Are visitor parking areas easily observed from the		No	Cannot be seen from office or classrooms
Is the main campus entrance easily viewed from the	Yes		
Are shrubs and trees at the campus entrance properly trimmed to enhance natural surveillance?	Yes		
Are there any known locations of drug activity near the		No	
Are there any hazardous materials concerns near the	Yes		Chemical factory school of town approx
Are there drainage ditches near the campus that could pose a hazard to children following rain?		No	
Are there commercial establishments near the school where armed robberies might occur (bank, convenience	Yes		Convenience Store .25 miles
Are there any locations where regular gang activity is		No	
Is there currently construction underway near the school?		No	
Are there any vacant buildings near the school?		No	
Has the school coordinated efforts with local public safety officials concerning hazards close to campus?			NA
Are there major highways or railroad tracks near the	Yes		Railroad .5 miles west
Are there nuclear power plants, power plants, factories, or other industrial facilities near the school?	Yes		Chemical factory school of town approx 1.5 miles
Are there any stores near the school that sell weapons or firearms? (Pawn shops, sporting goods stores, etc.)		No	

WALKING THE PERIMETER			
Low-hanging limbs on trees adjacent to the school could facilitate easy roof access to the building. Are limbs			NA
Is perimeter fencing in good condition and without any	Yes		
Are exterior hallways clearly marked on the outside of the building to aid public safety in their response efforts? Reflective numbers would be ideal to aid in easy		No	Plans are underway to mark windows from outside
Are individual classrooms marked in such a manner that they can be easily identified from outside, i.e. room		No	Plans are underway to mark windows from outside
Is there some type of external public address system around the perimeter of the school to address possible lock-down announcements, severe weather alerts, etc. for	Yes		Public address system activated in office
Are all barrier chains secured so that they do not pose as			NA
Are all tree roots that pose as trip hazards cleared from			NA
Are all drainpipes, door catches and other items protruding from the building or grounds painted in a high visibility color to help prevent people from tripping on		No	
Do exterior doors remain locked throughout the day?		No	Custodian locks all but one utility door
Are there frequent checks on exterior building lighting at night to make sure all areas between buildings and	Yes		Local police patrols

WALKING THE PERIMETER			
Are fire hydrants clear of nearby parked vehicles to enable the fire department instant access to all hydrants?	Yes		
Are all exterior air conditioning fuse boxes constantly locked to prevent vandalism, possible disruption of services, or injury?			Unknown - AC units on roof.
Are there alarm-warning signs on the exterior doors?		No	
Are all fence gates secured?	Yes		Two gates to athletic fields.
Are all power boxes, gas exchanges, and satellite dish areas fenced and locked?	Yes		
Are all building areas and evacuation routes restricted from vehicle parking?		No	
Is someone assigned to conduct a "morning-sweep" of the property to look for contraband, adult items, hazards or anything else out of the ordinary?		No	
Are there handrails on all stairways?			NA - single story building
Is non-slip material installed on all steps, where appropriate?		No	
Are all exterior electrical outlets secured?	Yes		
Do the hinges on exterior doors face inward?	Yes		
Are all dumpsters and garbage disposal areas kept free of loose debris and flammable material, and accessible to garbage pickup?	Yes		
Are personnel assigned to monitor parking and bus loading areas during arrival and dismissal times?		No	Not arrival. Teachers are assigned supervision during bus loading
Are all fire lanes kept clear at all times?	Yes		
Are loading docks kept free from debris and not blocked by other vehicles?	Yes		
Are all bicycle racks visible from front of school?	Yes		
Is entire campus accessible to security vehicles?	Yes		
Is all accessible equipment that is breakable secured or protected from vandalism?	Yes		

EVACUATION SITES AND ROUTES			
Are evacuation routes planned to include students with mobility problems? (Especially important during a bomb threat)		No	
Are evacuation routes planned so as to avoid parked vehicles, dumpsters, or unoccupied buildings? (Especially important during a bomb threat)		No	
Are evacuation sites "sanitized" by personnel who are trained to recognize possible explosive devices or who are familiar with the evacuation site area to be able to recognize objects not normally there?		No	
Do teachers take roll once at the evacuation site for accountability and to identify possible suspects during a bomb threat evacuation or false fire alarm?		No	
Is at least one uniformed law enforcement officer designated to cover evacuation routes and sites during all evacuation drills and actual evacuations?		No	

EVACUATION SITES AND ROUTES			
Are fire or bomb threat evacuation sites located in areas other than parking lots or a school roadway?		No	
Have all school staff members been made aware that while there is a slight potential for detonation of some explosives associated with the use of radios, portable telephones and cell phones during a bomb threat/bomb incident, they should still be prepared to use such devices during life threatening emergencies as the risk of detonation is typically lower than the risk of death due to the immediate life threatening emergency?		No	
Do alerts for bomb threats differ from those for fire evacuations?		No	
Do evacuation sites remain confidential to administrators, staff, and law enforcement officials only?	Yes		This is part of the District plan. No intent is made to keep site confidential
Do policies specify that fire evacuation sites should be a minimum of 300-feet from the facility?		No	Students gather in parking lots and give way to emergency vehicles

SCHOOL FACILITY IN GENERAL			
Can all classrooms be contacted by the office electronically?	Yes		Via phones in classrooms
Are bathroom doors kept open to increase natural surveillance?		No	Doors are spring loaded and close upon entering
Are vending machines located in a manner that minimizes blockage of line of sight?	Yes		
If site survey is conducted during school hours, is class change orderly?	Yes		
If so, are any students seen running in the halls or engaged in horseplay that is unsafe?		No	
If so, does the site survey team hear any students using profanity, gang signs, or inappropriate language?		No	
Is there evidence of vandalism that could indicate problems with the level of supervision in the school?		No	
Are any windows broken or cracked?		No	
Are all windows secure and window locks in good condition?	Yes		
Are all door locks in working condition?	Yes		
Are all doors secure and in good condition, including strike plates and panic bars?	Yes		
Do outside doors have exterior facing hinge pins, and if so are they easily removed?		No	
Are all center doorposts in double doors well secured?	Yes		
Does the exterior of the building have adequate lighting?	Yes		
Is there enough exterior lighting to provide minimal illumination if one light bulb burns out?	Yes		
Are floors clean and in good repair?	Yes		
Are all mechanical rooms, boiler rooms, hazardous materials rooms, and other maintenance areas kept locked?		No	
Are all deliveries made at one specified entrance and delivery persons accompanied by staff?		No	Not accompanied by staff

SCHOOL FACILITY IN GENERAL			
Is all school equipment inventoried? (updated often in the case of expendable materials)	Yes		Annual inventories conducted
Are all water fountains and faucets tested regularly for water potability?		No	
Are unused areas locked during after-school activities?	Yes		Night custodians access classrooms and lock when finished
Are exit signs properly placed, clearly marked and lit throughout school?	Yes		
Is a record kept of all maintenance?	Yes		Custodian maintains records
Do all locked doors comply with local fire codes?	Yes		
Are large windows in hallways and office made of shatter-resistant safety glass or do they have shatter resistant film on them?		No	

MAIN OFFICE			
Can the office contact classrooms? How?	Yes		Public address system and telephones
Is there a formal visitor check in and identification procedure, and is it clear for first time visitors? (Including repairpersons and vendors)?	Yes		Visitors must enter office first - can avoid office and gain access
If there is a visitor check in procedure, does staff check the identification of any visitor they do not know on sight and issue temporary visitor ID?	Yes		Identification is not checked
Does this procedure indicate the destination of each visitor, as well as time and date of visit?	Yes		Visitors sign in and out on their own
Is there a student ID system?	Yes		
Is there a staff ID system?	Yes		
Are all heavy and sharp objects out of a visitor's or student's reach within the main office complex?		No	Chairs, pens, and various office supplies within reach
Does the arrangement of each administrator's desk (or seating arrangement during meetings with parents and others) allow for a quick escape route in the event someone in the meeting becomes hostile?		No	Both administrators' desks can be blocked in this situation
Is there a current verified collection of all facility telephone extensions and/or numbers available?	Yes		Phone numbers are checked at the beginning of the year
If a video surveillance system is present, is it recording on a 24-hour basis?		No	Cameras are not used
Are the tapes and taping system stored in a locked area?			NA
Is there an intrusion alarm system present in the building?	Yes		For use during non-school hours
Do the alarm panels and fire alarm pull stations remain accessible?	Yes		
Are the access codes closely guarded?	Yes		
Are bomb threat checklists readily available, visible and near each phone?	Yes		
Are desktop computers secured?		No	
Are all keys stored securely?	Yes		In walk in safe
Does the facility have a method of getting a master set of keys, alarm codes, a floor plan, a site plan, and emergency operations plans to public safety for after-hours emergencies?	Yes		

MAIN OFFICE			
Do area public safety agencies have copies of your site and floor plans?		No	
Do you have access to an aerial photo, which can assist you and public safety in formulating and evaluating your site plan?	Yes		
Does the numbering system for all classrooms and rooms correspond to an updated floor plan?	Yes		Was updated this year
Have all office personnel placed their furniture in their office in a manner that provides a quick escape route in the event of a hostile individual in their office?		No	
Does the office vault have controlled access and the ability to be opened from the inside?		No	Door is open during day
Are school files and records kept in a secure location? (Locking file cabinets, office vault, etc.)	Yes		

HALLWAYS AND MAIN AREAS			
Can doors be quickly secured during a lockdown?		No	Teachers must enter hallways and lock doors with keys
Is visibility through classroom windows unimpeded?	Yes		Blinds on all windows
Are classrooms marked by number and not by teacher's name?		No	Names are on doors
Are the numbers located on the wall next to the classroom and are they unobstructed?	Yes		
Are they raised numbers and fastened in a permanent fashion?	Yes		
Are they visible when the door is open?	Yes		
Are all unused lockers secured? (for large numbers of lockers, cables may be a viable option)	Yes		
Is someone assigned to conduct a "morning sweep" of the building interior to identify anything out of the ordinary or potentially dangerous?		No	
Are wall electrical panels locked?	Yes		
Are all fire extinguishers located in high visibility and unobstructed areas and checked regularly for operability?	Yes		
Does each hallway have a minimum of 6-feet of clearance from one side to the other?	Yes		
Are exit doors clear of obstructions and easy to operate in an emergency?	Yes		
Are all hallways clear of coat racks?	Yes		
Are trash cans located in areas with good natural surveillance? (to prevent students/others from using them to hide contraband or explosive devices in them)	Yes		
Are pay phones located within view of the office staff or monitored by video surveillance (to prevent bomb threats from being called in from them)?		No	
Do classroom doors open inward?		No	
Do classroom doors swing "in the clear?" (Any obstructions to free movement?)	Yes		

HALLWAYS AND MAIN AREAS			
Are all ceiling tiles in place?	Yes		
Is the interior directional signage for specific locations adequate?	Yes		
Are all bookrooms, teacher's lounges, custodial closets, and electrical rooms always secured/locked?		No	
Is there a functioning emergency lighting system in the hallway?	Yes		
Are all chemicals and cleaning supplies put up and out of the way?	Yes		
Are interior fire doors magnetic and do they contain windows?	Yes		Fire doors do not contain windows
Do these doors remain unobstructed?	Yes		
Does the magnetic system function properly?	Yes		
Are fluorescent light bulbs, lenses, and covers securely fastened?	Yes		
Are large windows located in the hallways made of safety glass or do they have shatter-resistant film on them? If so, are they properly structurally secured?	Yes		Not shatter resistant
Are art objects or trophies protected against tipping over, breaking glass or sliding off shelves or pedestals?	Yes		
Are lockers locked with school locks?	Yes		
Are there any indicators (such as damage) on ceiling tiles that they are used as hiding places for contraband?		No	
Are the paper towel and toilet tissue holders constructed of see-through plastic to prevent their use as hiding places for contraband?	Yes		
Are the paper towel and toilet tissue holders locked?	Yes		
Are all soap dispensers or other items on the wall in current use and are they locked? If not in current use, they should be removed.	Yes		
Do the bathrooms have hallway doors?	Yes		
Are the hallway doors lockable?		No	
Are trash cans plastic?	Yes		
Are trash cans open-topped?		No	
Do you conduct frequent checks of your trash cans that can result in the discovery of contraband under the plastic liner in the can?	Yes		Emptied daily
Are students observed to prevent loitering unsupervised in hallways?	Yes		
Are students restricted from entering empty classrooms unsupervised?	Yes		

IN THE CLASSROOM			
Does the classroom have some sort of secondary exit?		No	
Are fire evacuation and severe weather shelter diagrams posted in a visible area?	Yes		
Are televisions bolted and/or strapped to carts in all classrooms?	Yes		
Do teachers carry their keys at all times?		No	No policy - some do some don't
Do doors have ADA compliant handles and latches?	Yes		
Do teachers have breakaway identification lanyards?		No	

IN THE CLASSROOM			
Are heavy objects and furniture properly secured?		No	
Does the intercom make a beeping or other distinct sound when the classroom is contacted by the office?	Yes		
Are sharp objects such as scissors and letter openers lying on the teacher's desk or other work area where they may be picked up and used as a weapon by a student or angry parent/intruder?	Yes		

GYMNASIUM			
Are the exterior doors and windows locked during the day and when not in use?	Yes		
Are exits unobstructed by equipment?	Yes		
Is two-way communication possible with the main office?	Yes		
Can the intercom be heard when activities are being held in the gym?		No	Difficult to hear during activities
Are all fire exit lights and emergency lights functioning properly?	Yes		
Are fire extinguishers readily available?	Yes		
Do coaches/teachers carry walkie-talkies to outdoor recreational areas?		No	
Are sound speakers in elevated locations anchored to the structure?	Yes		
Are hanging lights in the gym protected from striking each other or some type of ceiling brace if they were to swing freely?	Yes		
Are retractable bleachers locked on a daily basis?	Yes		

POLICY AND PROCEDURE			
Has the school developed site procedures for the district emergency operations plan?		No	District is working on plan
Does the school have an assigned police officer?		No	Share an SRO with high school
Does the school have a formal crisis response team?		No	
Does the school have a dress code?	Yes		
Does the school require students to keep book bags in lockers during the day?	Yes		
Have specific plans been made to assist mobility, visually or otherwise impaired staff and students during evacuations?		No	
Is there a procedure to notify bus drivers quickly for an emergency evacuation?	Yes		Two-way radio
Do you revise the names and assignments in your plan twice a year to reflect the current staff available to respond to an emergency?		No	
Has a staff training or briefing session been conducted this year to review the district's emergency procedures?		No	
Does the plan assign someone to cut off the power and the gas to the building, if possible, during emergencies that require it?		No	
Have any lockdown, severe weather sheltering and shelter in place drills been conducted this year?	Yes		

POLICY AND PROCEDURE			
Has at least one table top or functional exercise been conducted at the school this year to allow staff to practice for crisis situations?		No	
Has at least one member of the school crisis team participated in or observed a full-scale exercise during the past year?		No	
Does the student handbook clearly explain school policy on weapons, dress code, plain-view searches and penalties associated with various offenses?	Yes		
Does the student handbook clearly explain search and seizure policies as they apply to the student, personal items, lockers, and vehicles?	Yes		
Do the school parking permit and/or registration form, where applicable, mention vehicle search and seizure policies?		No	
Are tasks assigned to ALL personnel in your emergency procedures plan? (Ex. Cafeteria workers, custodians, etc.)		No	
Is there some mechanism to advise all volunteers of their role during an emergency?		No	
Is there some mechanism by which to advise substitute teachers of their role during an emergency?		No	
Does your plan address the location of all access points onto the campus and how these can be controlled during a potential crisis?		No	
Has the police department programmed perimeter choke points into their computer aided dispatch system to ensure that a proper perimeter is established quickly in the event of a major crisis?		No	
Has the fire department conducted a pre-fire plan for your facility?	Yes		
Have any and all fire code violations noted in the last fire inspection been corrected?			NA
Are staff members trained in the use of fire extinguishers?		No	
Does policy specify that teachers and staff not lock their doors during evacuation for fires or fire drills?		No	
Are back up personnel assigned for all critical crisis team functions?		No	
Is there a current list of all First Aid and CPR certified staff in your facility?	Yes		
Are all fire exit diagrams properly oriented?	Yes		
Do all fire evacuation plans have a brightly colored indicator to show people where they are in the building? ("You are here")	Yes		
Is it policy that teachers instruct classes with their doors locked?		No	
Has the school developed a detailed floor plan or schematic, which labels all power, gas, water, internet and cable television cut-off areas? (As applicable)		No	

POLICY AND PROCEDURE			
Does the school use alternate bomb threat evacuation sites and routes when a series of bomb threats is received?		No	
Do you have at least one bullhorn and cell phone dedicated for emergency use and/or one private phone line with an unlisted number for your facility?		No	
Is there an anonymous reporting box in an area that is not well-traveled in your facility to allow students to report possible policy and criminal violations?	Yes		Also uses a telephone "tips line"
Is someone assigned to meet public safety (fire, police, EMS) at the front of the building any time these agencies are called for an emergency?		No	
Is staff required to sign out when they leave the building at the end of the day?		No	
Are all (full time and part time) staff members required to wear ID badges?		No	
Is there a staff member designated to check all classroom, office, and exterior doors at the end of the day to ensure that they are locked?		No	
Is there a staff member designated to check locker rooms and other hiding places at the end of the school day?	Yes		Part of PE teachers' assignments
Is there a staff member to check the alarm system at the end of the day?		No	
Is there a policy for receiving cash and securing it at the school?	Yes		
Is there a regular check of the entire alarm system at least every 6 months?	Yes		
Is there a maintenance schedule for all regularly	Yes		
Are paychecks of terminating or resigning employees kept until return of facility keys?	Yes		
Is all staff trained to watch for suspicious persons on campus and make a note of their physical description, clothing, and vehicle description if applicable?		No	

LOCKDOWNS			
Is there a plan of action for students in hallways, cafeteria, outside on the ball fields and for bus unloading/loading when the lock-down signal is initiated?		No	
Does the school conduct lockdown drills?	Yes		
At unconventional times?		No	
Do teachers know proper procedures in a lockdown	Yes		
Does the school use color-coded placards cards to indicate the status in classrooms?		No	
Do lockdown procedures include ALL school staff (i.e. Cafeteria workers, media center personnel, etc.)?		No	Problems noted with non-teaching staff

FAMILY REUNIFICATION PROTOCOL			
Has the school established multiple areas away from campus where students can be united with their families?	Yes		Part of district plan
Has the school designated an individual to coordinate the family reunification site and all of the agencies that will be responding to that site?	Yes		
Are staff members assigned responsibility and trained for signing out students and verifying identification?		No	
Does the school crisis response team update student and staff emergency contact information several times each year?	Yes		Office secretaries do this routinely

Source: Safe Havens International, Safe Havens International Tactical Site Survey Template (Macon, GA: 2004), 3-25

APPENDIX B

INTERVIEW TOPIC QUESTIONS

Background

On September 1, 2004 a group of heavily armed terrorists attacked and took control of a school in Beslan, Russia resulting in a three day stand-off with police and military. When it ended 330 people were dead and more than 700 wounded. Most were children.

Recent school violence cases in the U.S. have forced officials to take measures to protect students. This study asks the question, "What are the financial, instructional, and climatal impacts of protecting a single U.S. school from a terrorist attack similar to the one that occurred in Beslan, Russia?"

Script

This study is being conducted through the U.S. Army Command and General Staff College at Ft. Leavenworth, Kansas as partial fulfillment of the requirements for the degree Master of Military Art and Science. This interview will last approximately 45 minutes. There are six topic questions I wish to ask during our interview. Your participation is completely voluntary, and you may decide to end the interview or take a break as you need. Your participation has been approved by the building principal. You may modify or remove your statements at any time prior to the publishing of this thesis. You may ask any question you wish during the interview; however, my response may be shaped so as to not prejudice any information you may give me. All information collected during this interview and study will be kept confidential. I will only refer to you in the final draft with respect to your official assignment. This interview is being electronically recorded and I will provide you with a typed summary before I include any information in my thesis. I will retain one digital copy of the audio recording in my home, under lock and key, for a period of no less than five years, at which time the digital copy will be destroyed. With this information in mind, do I have your consent to include you as an interview participant?

Topic Questions

1. How do current school security measures affect staff and students?

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

2. How would the school be affected if strict controls were emplaced to restricted unauthorized access to the building? (Consists of requiring visitors to sign in and out through the office, wear identification badges and be re-directed to the office if they fail to follow procedures)

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

3. How might staff and students be affected if the school to implement a Closed Campus? *(Consists of a physical perimeter surrounding the school property with access control points manned during operating hours. Each visitor is checked and only authorized personnel are allowed to enter school grounds. Access points are physically blocked during non-operating hours)*

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

4. How might staff and students be affected were the school to implement Security Teams?

(Consists of multiple trained personnel armed with weapons and capable of resisting an armed attack on the school)

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

4. How might staff and students be affected were the school to implement Off-Campus Evacuation Procedures?

(Consists of alerts to students and staff to immediately leave school grounds and consolidate in a safe-area away from the school to avoid a hazardous situation)

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

5. How would staff and students be affected if background checks were required before anyone was given unsupervised access to the building? *(Consists of formal background checks conducted through law enforcement on all vendors, volunteers, contracted, and non-contracted employees)*

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

6. How would staff and students be affected if tactical videotapes were made of the building and given to law enforcement? *(Consists of detailed videotapes made outside school hours and given to law enforcement to be used to develop response plans during a crisis event)*

- a. With respect to Financial Costs?
- b. With respect to Instruction?
- c. With respect to School climate?

APPENDIX C

INTERVIEWS EXECUTIVE SUMMARIES

Interview Participant: Principal

Biography: First year in the building but 5 years as a principal. Sixteen years in education. Has had crisis planning training for two districts prior that was more holistic not specifically anti-terrorism

Current Measures in Place: Cameras in entrances way. We would like to have them throughout the building but at \$300 each it is cost prohibitive. We conduct lockdown drills. If we find someone in the building we say lock down the building. We don't use codes it can confuse subs. In December we evacuated to the high school. Not a formal procedure before hand. We had an odd fire alarm going off. My understanding is that this had been set in place in previous years and I asked about the process I was told that "yes all the teachers know it." Come to find out that that was not the truth. I thought it was coordinated well. It is now an established procedure. I made the call and told the director of maintenance and the superintendent. Students and staff were notified on the intercom and then we had several staff members that had the radios who spread the word. We also found that there were several staff that did not evacuate. So we did a search of the building and they were told that this was not a drill and afterwards it was told to everyone that drill or no drill you have to leave the building.

Inner-Perimeter Access Controls: One problem is the front entrance. The bond issue will create a single entrance where everyone enters. Currently you can get in the front door without being seen. We do have people who enter, unfortunately, that get past us. Can get deep inside the building before they are seen. We use visitor badges. Staff instructed to challenge anyone who does not have them. Our problem is that they challenge unless they know who that person is and then they won't challenge. As we know even knowing someone does not guarantee they are not here to harm our children. Parents and delivery people have built up a level of trust. If it is during class it allows that person to get deep inside the building.

Closed Campus: With personnel and equipment we are probably talking between \$500,000 and \$700,000 with annual O/M another \$50-100K. Security guards are \$30-60K with benefits. Your schools are going to look like a prison with all the aesthetical problems with that. Parents will not like it. In the beginning it will be very negative. Teachers, students, parents, and the community will not like it. They will think it is a dangerous situation. It may get better over time. Unfortunately it is going to take something drastically to happening in the United States for anybody to look at something like those measures. We would need dogs to check buses. It would slow down the process dramatically and would extend the opening of school. The perimeter is crowded. This building would have to close off front entry way and bring cars in from the north or the west. You could not stop cars on the street. We would need another access point. You

cannot congest an open public road to be able to do that.

Armed Security Teams: You would have to provide the training. It would require 2-3 months of training and the cost would be very prohibitive with salaries. Psych evaluations would need to be conducted. The only way to do that is to work with military or special units in the police department. Our small town does not have SWAT. It is cooped from [larger city]. Who is going to pay for it? Would it be a combination of military police and school or school only? Grants could possibly pay for it. Currently the district SRO is funded 50/50 by the city and the school. I would expect something similar with these security teams. When you are looking at National Security I imagine the military will be involved. You are going to have a lot of scared kids. We already have kids that are scared to go to school and that is why they are homeschooled. We counsel others on daily or weekly basis just to get them to come to school. They already have a fear of their peers, and limited academic ability. Now they are afraid for their safety. Some of them have unsafe homes. Now they have no safe place. Would it increase the possibility that a kid may try to challenge that authority? No. Unless they were doing it on purpose to get themselves expelled. And sometimes students do that because of their fear to come to school. Others do that because of a dare or they know that is one way they can get out of doing the academics.

Off-Site Evacuation Drills: You definitely are not going to have time to deploy buses. Those buses are operated by people who are at home so we would walk. We [the district]) bought [a commercial building] and that is one place we could house kids. Beyond that really there isn't anywhere besides the [regional auditorium] and that is an evacuation site for us. It is about five miles away. In route there is a possibility that we could meet buses. There would be confusion because we don't have those customs. If you hear gunfire in this town it is going to automatically set off panic. On a normal day in our culture I think the sound of firing a shot gun sends panic. Part of it is because of 9/11. We would not have awestruck we would have confusion because our kids would hit the floor and our teachers would want to run. Teachers would do a lockdown. Plans are underway to put letters on all windows so law enforcement will know where everything is. It is just ingrained that our teachers go to lock down. We do it for drug dogs and suspicious behavior. If we had to dismiss to a farther site there a mechanism currently in place to account for kids and contact parents. On teachers' rosters they have phone numbers and we have a check out process so kids cannot go anywhere without being signed out by a parent. It has not been rehearsed to my knowledge.

Background Checks: We don't do that. It is only on staff; the ones we hire. We won't hire anyone with a felony or assaults against a child. If the Board of Education wanted checks done it would cost \$5,000 per person. That is a national check with fingerprints. I estimate with parents, and delivery people between 150-200 people. The community wouldn't trust us. They would think that we didn't trust them. I bet our volunteer rate would go down. There are probably parents who come into our school who have something in their past that they don't want us to know about.

Tactical Videotaping: We would be willing to do that with law enforcement. We asked that principals and counselors not be identified as we are the number one targets. As long as law enforcement is the ones that have the video tape it would not affect the school.

Interview Participant: Assistant Principal

Biography: First year as assistant principal. Prior to that taught third grade three years in a higher income district and second grade for two years. Student-taught in a lower income district. Participated in crisis management seminars as a college resident director [dormitory], redirecting conflict, safety against weapons, and working with law enforcement. Nothing specifically with anti-terrorism. Part of seminar was being aware of plant management, locking doors, using video cameras, included a speaker talking about violence and video games. We were aware of what to look for so far as students who were depressed and might harm other people.

Current Security Measures: A crisis handbook is on file but teachers are not fully aware of how to handle it. Some may not know where their crisis handbook is. For \$500 we can get everybody in the building a binder and list of procedures. As far as lanyards cost less than \$50. As far as student instruction we keep the school safe but there are some downfalls in the architecture of the building. The office cannot see the main foyer because the way the walls are we cannot see people when they come in. There are a lot of exits open in the morning because teachers do not have keys and anybody could come in. There are a lot of community members that have keys to our building that over the years have not been checked out. There are potential for security breaches in our building that are controllable if we were able to put several thousands of dollars into re-keying the building and starting over from scratch. It is not part of the bond for the MS. \$30K is the set amount. I estimate it would cost an additional \$3,000. We have a security alarm at night that protects against theft but doesn't protect kids during the day. We have a few video cameras in the school but not on tape backup. They are not even used

Inner-Perimeter Access Controls: If teachers were more aware of who had badges it would have more of an impact. We have so many teachers and paraprofessionals and substitutes and so many people in the building that adults don't always know who the other adults are. There are lots of times that if a person is decent looking and don't look like they are a threat they can walk down the hall without checking in. Somebody in professional dress in a suit and tie no one stops them. They don't draw attention. The way the office is set up people can go right down the hall without checking in. The staff has to be educated. I think it would be positive if teachers felt part of the team and ensured safety of the kids. They are our eyes out there. They are our second line of defense. So the building climate would be if the teachers felt safe the kids would feel safe. In my opinion any person that is waiting at a teacher's door without checking in at the office needs to be referred back to the office. We don't know why they are in the building. We have had situations where they catch teachers off guard in the morning and conflict developed. Without someone checking in who knows what might happen. I don't want it to go to violence. There were a couple of situations where I was afraid that the parent might hit the teacher and neither time did the parent check in at the office.

Closed Campus: It would totally change the way a school operates. Transportation for buses would be difficult to get them checked. It would take some time. Parent cars are a

long line. 150 cars come in at once, sometimes 200, it might be slow checking everyone in. But as far as the safety it would provide I think the parents would be happy knowing their kids were safe. The whole idea may be frowned upon because of time management and the cost but ultimately the kids would be safe. The basis of a successful learning environment is making the kids feel safe. Deliveries would not be affected that much we do not have a lot of deliveries except mail. We do ship food out every day. But it is prepared here and shipped to other schools. They are already through security.

Armed Security Teams: I think it would promote safety and security. It would be intimidating for anyone thinking about doing something. Their presence in the hallways would keep parents from waiting at teachers' doors. During passing periods there would be very few problems. The school would be primarily focused on learning. The visual would make people stop and think. I don't think students would want to challenge a team. No one ever challenges the SRO. Sometimes he brings a couple of other [police officers] with him and no one ever challenges them. Kids comply immediately when 2-3 policemen are in the room. Once a routine is established there would not be that fear of terrorism so they would have to be involved in other places. Maybe as teacher aides or teaching lessons. They could help focus with the kids. I can see them in the classroom helping out.

Off-Site Evacuation Drills: If we have to evacuate on a cold day it is hard to pull off because you have to have transportation. Disabled kids or injured people it is not conducive. Going to the high school was total chaos. That day was blistering cold. There was not a good plan to get [students] to the high school. The high school [staff] wasn't prepared to accept 600 kids at lunch. We had injuries slipping on ice. There is a plan but it hasn't been reviewed with the staff before or after that incident. It needs to be fine tuned. The staff needs to be drilled. On the day of the incident we had some staff that thought it was a false fire alarm so they stayed in their class. Others didn't want to walk across in the cold so they drove their cars instead of helping with the students. They need to know our expectations of protecting the kids. They need a detailed checklist handy and right by the door. About 400 kids were not in class. They were in and out of the cafeteria where it was difficult to transition. Grades were mixed. No teacher was in charge of a specific group of kids. We had 200 kids with 2-3 teachers and no one knew who was with who. It was a big problem. There were major doubts about accountability. Radios were down. On that day they were in places where they normally would not be during a fire alarm. Not every teacher has a radio. Communication was running from one side of the building to another. I don't think anybody thinks about the worst thing that could happen. We make plans for minor problems but not major.

Background Checks: It would be nice to know who you are dealing with. We have people in the building all the time that you don't know. The cost would be substantial. People may not want to work with you if the school doesn't trust them. But anything you do to make the school safe is a good thing. We have some background information on parents if they are sexual predators they are not allowed to see their kids. Not everyone is allowed to see that information. It is usually an administrator or counselor that knows

that. If that person doesn't check in at the office no one would know who the person is.

Tactical Videotaping: I think that makes sense. Our building is difficult to navigate. Doors are mislabeled or they were. I made sure this year that every door is labeled to correspond to the map. We are putting stickers on every door and window so if there was an emergency the police would know which window is with which room.

Interview Participant: Language Arts Teacher

Biography: I have 25 years in the classroom, 11 in the present position. I taught social studies and language arts. I have a Masters in special education. I was part of a committee that met to put together a crisis plan for our building 4-5 years ago. It did not address anti-terrorism. It dealt more with school shooting and child abduction.

Current Security Measures: I cannot speak financially as it does not affect me other than supplies in need. I have practiced my plan in terms of getting people away from the windows as much as possible. Locking the door is difficult. Have to go out in the hall to lock them they are not locked during the day. We have practiced twice all school year. We go to our safe place and sit down in the corner. There is confusion about leaving the blinds open or not. The latest is that we will close them. I am not aware of a crisis team in place.

Inner-Perimeter Access Controls: We all wear lanyards with ids. Some staff members don't wear them but anyone who comes in the building must have one on. If we see an adult that doesn't have one we ask them to go to the office. I know it happened a few times. But it does not happen often that someone gets in because all the doors are locked. Signs are posted on all doors to go to the office. It is pretty easy to distinguish someone who is in the building all the time. Even if someone's husband comes in they are to sign in. I have stopped 2 people this year and they were parents who wanted to go to their child's locker to get some things.

Closed Campus: Financially it would be a huge task but I am sure we could find the money if it were necessary. The more a population is controlled or compressed and the fact that every individual would be checked that heightens concern. On the other hand depending on the situation for instigating that it could increase the calm and security of the building. But the more you compress the population the more people act in an institutional manner. I think children's behaviors would be more difficult because of what they would have to experience. When kids are more frightened they need more attention and they go about seeking that in ways that may not be positive. They may be more angry and less tolerant. Yet, if a situation occurred there would be a sense of calmness by us and parents that their children would be secure. The group then becomes more dominate than the individual because their feelings spread to each other. It sounds very uncomfortable to me. It would make it more difficult to instruct because you would have to deal with that behavior first. We could talk about it. I may have to put greater controls in my class to keep everyone on task. It is a perception of safety but if they wanted to attack this school even if it was surrounded they could do it. But we don't put perimeters around our houses. I think there is an extreme we can go to that will create more harm than we need.

Armed Security Teams: I would not feel comfortable with that. If there were multiple people who wanted to go into schools and attack them then that type of team is needed. I think it would create a different climate and I am not sure it would be a calm climate. It

would be a climate of fear. We have lost some freedom when there is someone walking in our building that is armed. It would not deter that [an angry] kid. It might become more exciting for them. Now you have a challenge. The team members would have to be involved with other parts of the school or else they would not be affordable. If they are going to be in the building the more involved with what is going on in the building the less threatening they would seem. They just become a staff member rather than here for a special purpose.

Off-Site Evacuation Drills: Off-Site Evacuation Drills: We had one drill and prior to that we were told to practice to prepare for the building-wide drill. To evacuate I believe they will use the fire alarm. We had a case where we had to evacuate and we could not allow students back in. It was a cold ugly day and we were sent to the high school. If we have to evacuate the area, that needs some work. We are to take a class roster. Most keep it in the book so I knew who my kids were. The walk over was disorganized. But when we came back I called off their names and they all were there. Kids find it exciting but I don't think it affects them that much. There is lots of giggling and pretending. It was hard to get them to understand the seriousness of it. I believe that if it were real they would understand. A fire drill situation and the kids need to stay with me at all times. They cannot go home they have to walk with me. That could take place quickly like a fire drill. If I know the direction I need to go. If the weather is bad to we go to our lockers? Hallways would be too crowded or we say it is life or death and tough it out. That is what we did for the last evacuation because we could not come back in the building. I don't know what gun shots sound like. If I heard it I might think it is what it is. I don't know I would automatically associate it with gunfire. I could quickly put that together. I would want to call the office but we have been instructed not to call during a lockdown. I would probably wait for further instruction. But I would probably get my kids to the corner. But it would take be a little bit to decide that. It would be feasible to practice but it would be done under ideal situations. It would take time away from class. It eats up instruction time for the moment. Maybe 10 minutes maximum; 5 minutes for the drill and 5 minute to get back to what we were doing. It isn't an interruption. It doesn't bother the way I teach.

Background Checks: I would not find that necessarily invasive. It is invisible and done in the background.

Tactical Videotaping: That goes on behind the scenes and I think that could be done.

Interview Participant: Science Teacher

Biography: I have been a science teacher for 29 years. The last 26 in this district. I have had no formal crisis training in anti-terrorism other than intruder drills.

Current Security Measures: We had lockdowns where students get in the corner and turn the lights out. We did one last year and again this year. We had an evacuation but I was not at school due to a family emergency. There is a policeman at the HS and I don't know how he is paid. This is new.

Inner-Perimeter Controls: There are signs that visitors must check in. Now we have locked doors. Cameras went down the hallways but I don't see that being used. I still see people in the hall without the badges. You wonder what their purpose is. If someone wanted to come in the building they could come in easily. The office is not able to stop them. I don't know what [a threatening person] would look like if they are not following the policy of signing in. We are getting to a point where we have to sort that out. There are so many students that I don't know them all nor their parents. With multiple combinations of parents we don't know.

Closed Campus: As a parent we may have to have a policy or plan that determines how much is too much in terms of keeping our kids safe? If we had that kind of setting it would lead more to academic classes and extracurricular activities would suffer. It would be a psychological adjustment for the kids. We would have to have a few catastrophes for it to sink in. Unless you have been there you don't know what to do. It doesn't really affect you. I was at [a rural school] when [suburban school] had the shooting and that was close. The mess and cost would create a fortress. If one school was at risk down the road is another school. Have they done the same thing? I see a big change in the setting. I don't know you can make a fortress around all school. How parents would respond would depend on how close the threat is getting. Schools are still the safest places. I wouldn't send my kids to a place that is unsafe. At what point is it getting like Israel? If it got to that point we would need to educate in some other way. It takes away from the type of school that I think of. Would you go to virtual schools? Would you go to the high school or use underground tunnels. The high school would have a perimeter and what do you do then?

Armed Security Teams: With the kids today I don't feel the kids would be aware of that. I don't know if they would walk the halls or how they would operate. I don't see my instruction being altered and I don't see the students being affected. It's hard for me to believe it would get to that point. Students would comment on the guns and have names for them. You never know how anybody is going to react to a stress situation. I don't think as a group they have been tested like that. I wonder about our hallways and the escape routes.

Off-Site Evacuation Drills: We would need a mock drill where people come in and scare the wits out of them. If someone came through that door with a gun they are going to get

to us. If we wanted to practice this and get kids ready you would have to drill them. When the fire alarm goes off and we are in the halls now one knows what is going on. It's chaos. We used to use code words. The students need to be educated on what to do. The parents need to be told what we are doing with this plan. When it happens people won't know if it is a book falling on the floor and by that time they are frozen and I can see that happening instead of reacting. I think we would have a bunch of innocent people here caught. I think it is very critical because there would be a lot of complaints. Right now state tests are going on and controlling time is important.

Interview ended prematurely as teacher had another appointment

Interview Participant: Math Teacher

Biography: I teach sixth grade math and have been here 16 years. I was a long term sub for half a year out of college. I have had no special crisis training

Current Security Measures: The doors are locked. Everyone wears identification badges. Cameras are in hallways but I am unsure if anyone watches them. I don't think there is an assigned person. There are no cameras outside the building. Prior to 7:45 [a.m.] all doors are open for teacher access. They were all locked last year. There was a mass rush to see who could get to school first to get the best parking places instead of walking around the building. Teachers do not have keys. There was some grumbling because people wanted to park near their rooms. It would have been more if the doors were locked too.

Inner-Perimeter Access: It does not happen as well as it should that staff direct people without badges back to the office. I think teachers are intimidated. Why, I don't know because parents are asked to check in to the office and get a visitor's pass but they don't always do that. But teachers need to do a better job. I know parents get irritated so in the future the teacher just won't ask. Sometimes you call the office and tell them about a person but we let them sort it out. Teachers want to avoid conflict and it is a small town and you know everybody so we let people we know go on without it. I think we need to be more comfortable confronting those who do not have a visitor's pass. Our staff either assumes or is intimidated but they don't what to go up to them. A lot of that is the parent who argues.

Closed Campus: It would just set the town afire. If there was legitimate cause like a close attack parents might be with that. I think kids would be scared. They would ask how bad it is. With the school shootings now I would almost feel safer with it. Honestly within the last 5-8 years it is a little scary to be a teacher. We think of terrorist attacks happening in populated places but until it happens close to home I don't think you are going to get the attention of people in this state. I am going to have to get here earlier. I am one that pushes it. It is going to be a distraction and inconvenience. But like anything you are going to get used to it if you know it is for safety. The kids are going to be distracted. They love looking out the window now and if you have armed guards that is definitely a huge alert for some of these kids. It's going to scare some and others are going to think it is cool and that is what they want to be when the grown up. Parents, you will have all extremes. Some parents are going to think it is a prison. I don't think it would increase violence in the school because I think they would do that now. I'm not challenging someone with a gun. It may cut down because they are going to look at security with more respect than the authority in the building now. People that might rebel, though, will be the parents who say they don't want guns around the school.

Armed Security Teams: I would not affect my instruction. Like the closed campus when you talk about weapons some kids will think it is cool. Unless there is training or a town meeting they are going to have to be well educated about it. The anxiety will be so high. Just knowing they are out there it would be a distraction then it would be part of the daily

routine. I think it is just so unreal to us because that is not part of our society.

Off-Site Evacuation Drills: I think it is something we are going to have to practice. I don't know if we have enough buses. We have so many exits here and are you going to run into them because you are unaware of where they are? I would want to get my kids out immediately. I would need training on that. We are a small rural town so we assume that person is not here to hurt us. It needs to be worked on. There is grey area between the two. When we evacuate we take the crisis book and our grade book. It does not have contact info in it. All that would be in the office.

Background Checks: It doesn't bother me. If people are trying to find a way around that then why?

Tactical videotaping: It would not affect me. I would just carry on with the normal day.

Interview Participant: Special Education Teacher

Biography: I am hired by the Special Education Cooperative to teach SPED. I have taught reading in a special education SPED classroom for 6 years. Before that I taught in Latin America in American or British schools where anti-terrorism was practiced to take care of the children where I taught a content classroom. I was not involved with planning for terrorism just practiced the policies already in place. They had dealt with this environment for years.

Current Security Measures: I don't know if there is a camera in the office.

Inner-Perimeter Access Controls: In morning doors are unlocked for teachers and students to enter. When classes begin the only doors open is close to the office. The others are locked. Anyone who wants to enter are at the office. People are supposed to enter and get a visitor's badge in the office. When you leave you are suppose to check out. That way the office checks to see who is coming and going. There may be some holes in that. I don't know if the office is always aware when some one comes into the school or if they just go off down the hallway and no one is available to stop them and ask what their purpose is. It might be easy for someone to gain access by going to the back doors and propping them open to allow someone to gain entry. There is not alarm or camera to prevent this. I think the boiler room door is always open. That front entry needs to be assessed to make sure of who is coming and going. It does affect my instruction, as long as I know they get those badges. This is not related to someone who is going to cause damage. It is nice to know when a parent comes in because I have had parents just show up who may be angry at another teacher and I like that idea of knowing when someone is in the building. To me I don't think we are prepared for something like this. I have seen people in the building who I know is not staff so I take say "Hi: to them and am friendly as opposed to telling them to check into the office. I have not confronted someone in the hall. Whether that is something personally I need to address. I think it goes back to this is a small community with small crime but I just don't know if we feel that threat. The attitude that it can't happen here. The closest is has happened was Oklahoma City. If it was noticeable I might go to the office and tell them.

Closed Campus: Is there anywhere in the US that has that type of security? Some schools [in Latin America] would have the metal detectors but for checking cars and having walls. That is difficult for my mind to conceive. We need to be proactive and protect our children, but has there ever been any type of threat like this? How would you make every school around the U.S. safe like that? Is that even possible to do that? How would the public react to that? That is so extreme from what we have now. Kids would resent it at first because of the extra time they would have to spend here. I can see some reacting in fear. At some point it would become a routine thing. At first the kids would not like it and see the reason for it. It probably wouldn't change my teaching. It would have something to do with prior knowledge to draw on for teaching concepts.

Armed Security Teams: I'd like that. But again it would have to be who your team was

would have to be trained. It couldn't be someone off the street that would get reckless or get in a confrontation with a student. They are here to protect against an outside threat. Again, this is so far beyond our community it is almost hard to conceive. But is that is what we need then I think it would be ok. It would scare the kids. Eventually they would get use to it. My teaching wouldn't be any different.

Off-Site Evacuation Drills: We have had some crisis drills this year. We had an intruder drill. It was the first time we have done that so it was a little new. We had to find a location in the room where someone walking by the door couldn't see us. It was hard to get the kids out of sight. Someone walked by and rattled the door and our kids screamed. I think it was because it was unexpected and it startled them. We were told later that that was something we should not have done. It was a valid point and we need to figure out some way to control our fear. Some of the kids were complaining about who they were sitting next to. In a real situation I know there would be fear. Some of the children now with autism, I am not sure if we are aware of how those kids handle that. There are some who have these disabilities that we just don't know how they are going to respond. It may not be politically correct but it seems like each year we are getting bigger and heavier kids. To tell them to sit cross legged on the floor for some it is difficult due to their size. Accountability of all my kids in an evacuation would be problem. When we went to the high school they went off with their friends. That would be an issue with 600 kids unless you had a system to count them off. If something like that would ever be necessary there would have to be some road map as to what to do. If there is not time for buses and cars, unless we had a plan and practiced our kids would just run. My kids would need to practice it. Because if it were that serious there would be a lot of fear and a lot of panic. If we had to go somewhere we would need to know what route to take I feel kids would just run home or get in a car with somebody. There would be some that would go faster than the others.

Background Checks: I don't know how extensive the para[professional]s are done.

Interview Participant: Principal's Secretary

Biography: I have been doing the job for 16 years and have had two children in school in the past.

Current Security Measures: At this time we don't have a lot of security measures.

Inner-Perimeter Access Controls: All doors are locked by 8 in the morning but you cannot see out of the office which will be fixed in the next bond issue. The students have little concern for their safety. You always think it is not going to happen here, students and staff alike. We do have a room where one room is open. That is a concern to me. There is no real financial cost as the custodian goes around and locks the doors after the first bell rings. If we were attacked first thing in the morning like Beslan they would have access to the school. We have had to explain visitor's badges to people. We need to have your name down incase something happens. It is more documentation. Not only do we want them to be comfortable we want the students and the staff to feel safe because they have checked in. I contact teachers who get visitors. They let me know when they are getting visits. And we have to call ahead with parents because of non-custodial parents. When we have had opposition it is generally because it is somebody that is not supposed to have contact with the student. Then I go back to the administration. In the office it is an unannounced way we let someone know there is a problem.

Closed Campus: It wouldn't change my job but you would have a lot of problems with people not understanding. You would have a lot of financial costs. Everyone would have to pay because it would be a tax payer thing. You would have higher absenteeism because of fear. I think fear would be a big factor. Staff would be gone more so you would have to pay for more substitutes Perhaps 50 more teachers gone that year. If a parent were stopped at the gate I would get the call to deal with that. I guess they would have to instruct us before hand. We do know most people in the community but not all secretaries would know that. The other lady in the office would not know everyone. Would we run to the gate and recognize them? How far would you go to say "Yes, I know them" and then they were the link for the terrorists getting in. Most parents wouldn't like it because anything that has to deal with their child. I can see a lot of people trying to pull their child out of school. You get use to it working and everyone would accept it. Change is hard for everyone. Safety would be number one. But they would feel like they were loosing control. If you feel they are not safe there why would I let them go there.

Armed Security Teams: It would be increased salaries. But I think it would help with irate people. We have had to have police come in and stand behind the desk. I would feel completely at ease knowing there were people here to protect our building. I don't think you can put a cost on even one life. I would not be intimidated by the teams. It would be for preventing something happening. I think this team would be used in other roles except it would defeat the purpose of having security. Yes, I can see someone using that as one more person to help me do my job. These teams would be a constant reminder of the

danger and it could increase tension with the students and staff.

Off-Site Evacuation Drills: We (office personnel) have our own lock down procedures. We weren't given instruction about contacting law enforcement. That may be something that administration does. I don't think the evacuation to the high school was carried out like it should of because there were teachers who went out to their cars. Administrators would check hallways. I don't know what responsibilities they would give us. I can access all contact information in another building. We would know the substitutes in the building. Generally, I can tell you who is gone. We do not have lists of classified staff or special education staff. There would be a large number of people in the building you would not be able to account for. I estimate, with food service and delivery probably up to 50 people we would not have any idea they were in the building. We would need ample transportation and we would not have that. It would be chaotic as parents come to the scene to get kids. Administrators would stay behind if it was just a threat. If they were shooting people in the building. From a parent's perspective I would help get kids out. Some would take kids and leave and may interfere with what we were trying to do. You would be dealing with them as well. I think we would be dealing with faculty issues as well. We have people here where rumors run rampant. You can't get everyone in rescue mode we cannot be speculating and doing anything to make things worse. Some people's mindset is just not that way.

Background Checks: If they have nothing to hide they should not have a problem. It is not fool proof because we had someone that had a felony charge. They did not have access to kids.

Interview Participant: Custodian

Biography: I have been doing this for 16 years, 14 years in this building head of custodial staff in the building. I am responsible for getting everything open in the morning and handing out instruction to the night crew and oversee them. I have had no anti-terrorism training

Current Security Measures: We open all doors in the morning and students are allowed to come in only one door only front and back then as soon as school starts we lock every door except the main entry way where no one can come in and I go around throughout the day to make sure those doors stay locked.

Inner-Perimeter Access Controls: I still find doors propped open. That still happens though not as much. Probably just a couple of times a week. It is not as bad as it used to be. That's on our door policy. We always ask someone we see in the building we do not know we ask them if we can help them. A lot of times when they come in the front door they just go where they want to instead of checking in with the office like they are supposed to. Sometimes they just know where they are going and they just go on down and sometimes they are lost and we just do that to make sure we know who is in the building. We also are supposed to wear our name badges. If I see someone I do not know I generally, even if they have a badge, ask them if I can help them. If I saw somebody like that I would probably get on my radio and tell them what kind of situation we have.

Closed Campus: It would make everyone's job a little more difficult. But I have always been big on safety. But I don't see how it would affect my position that much. We have contractors who would have to be checked. Sometimes we have quite a few of them here, like heating and air here. That might be an issue having to have their stuff checked all the time. It would just stop people from coming up here when they are not supposed to. That is a positive. Sometimes we have people who come up on the weekends like teachers that come up and leave the building unsecured. Happens quite a bit. I get a lot of calls about the alarms going off on the weekends. Last semester it seemed like every weekend.

Armed Security Teams: I don't know that it would bother my job. I don't know that I would be in favor. Especially if they were walking the building. Maybe kids would feel safer. We have some kids that might try to challenge them. I don't think kids would try to take them on. It might help some kids to feel safer. The SRO, if we had one here it might make a big difference in our kids here.

Off-Site Evacuation Drills: On intruder alert drills I have to go around and make sure people are where they are supposed to be. If we go to another building I am one of them that is supposed to make sure everyone is out of the building. There is usually two of us that go in different directions, two at a time that one goes north and one goes south and splits off in different hallways. And two will go outside of the building. I carry an earphone radio and when we went to the high school they came over and told me that we were moving all the kids to the high school. That is how I got that from the principal

because I was trying to figure out where the alarms had been pulled. I stayed here and did not go to the high school. I could account for my staff and the cafeteria people could account for her people too. She knows who she has each day. I would be going to check to make sure we have kids out of every room in the building to make sure nobody was left behind. I am one of the last ones to leave the building. This summer when we had the [commercial disaster that caused a city-wide evacuation] I went around and got everyone out and made sure the basketball practice kids had left before I left the building.

Background Checks: Sometimes background checks are hard to get on some people. I know just with us hiring people on my staff we have had a hard time getting background checks on some of them. Getting them done and back approved. There is something in their history that says they should not be in a school. As long as those people are going to be in your building and have access to your building I would say why not. I wouldn't have a problem with it. Sometimes it takes days to get a background check back and sometimes, like when heating and air goes down you need it right away. And a background check takes days even weeks. In the summer most of the people working here have been checked out. Most of them are teachers or some form of an employee here. Or kids that are seniors. We have some contractors when the bid is gotten in April or May so we would have time to get the bid and have background checks done for work to be done in July.

Tactical Videotaping: I don't see where it would have any impact on me. I know as part of our intruder alert we have numbers that are going to be put on windows and a diagram are given to police so they are going to know where windows are.

APPENDIX D

SUBJECT SCHOOL SURFACE DANGER ZONE

U.S. Army computer simulations analyze likely locations for bullets to fall to ground based on types of weapons system used and types of ammunition fired. These likely locations create a “ballistic footprint” which can be predicted by applying formulas learned through the computer simulations (U.S. Army 2003, 182-83). When placed over a map a “ballistic footprint” identifies an area on the ground referred to as a Surface Danger Zone (SDZ). A SDZ accurately predicts where directly fired and ricochet bullets may endanger personnel not participating in firing weapons.

Depending upon the weapon system and ammunition used the dimensions of an SDZ varies. However, creating an SDZ is similar regardless of type of weapon or ammunition. Based on the primary direction a weapon is expected to fire, a Gun Target Line (GTL) is drawn out to the weapon system’s maximum range (see figure 6). Five degrees left and right of the GTL identifies a Dispersion Area. This area accounts for errors in target acquisition, sighting, and weapon inconsistencies. Parallel to the Dispersion Area, on both sides, is the Ricochet Area. This is the likely area that a bullet will land if it were to deflect off of an object.

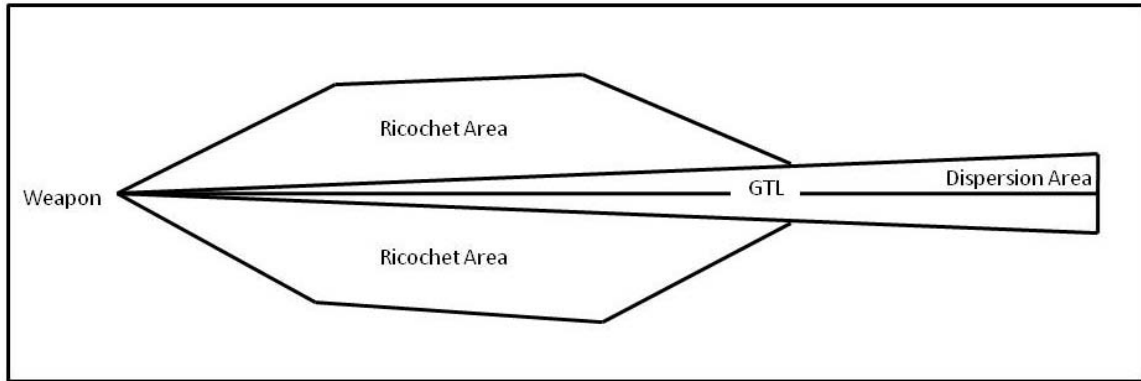


Figure 6. Surface Danger Zone Example

Source: US Army, Department of the Army Pamphlet 385-63: Range Safety (Washington D.C., Army Chief of Staff, 2003). 173

Based on the hypothetical attack used in this study, terrorists will attack the subject school on the southeast corner (see figure 4). An armed security team would return fire from the subject school in a southeastern direction. The weapons the armed security team would use fire a M193, 5.56 ball out to a maximum range of 3,100 meters. Given these characteristics Figure 7 depicts an SDZ over the subject community

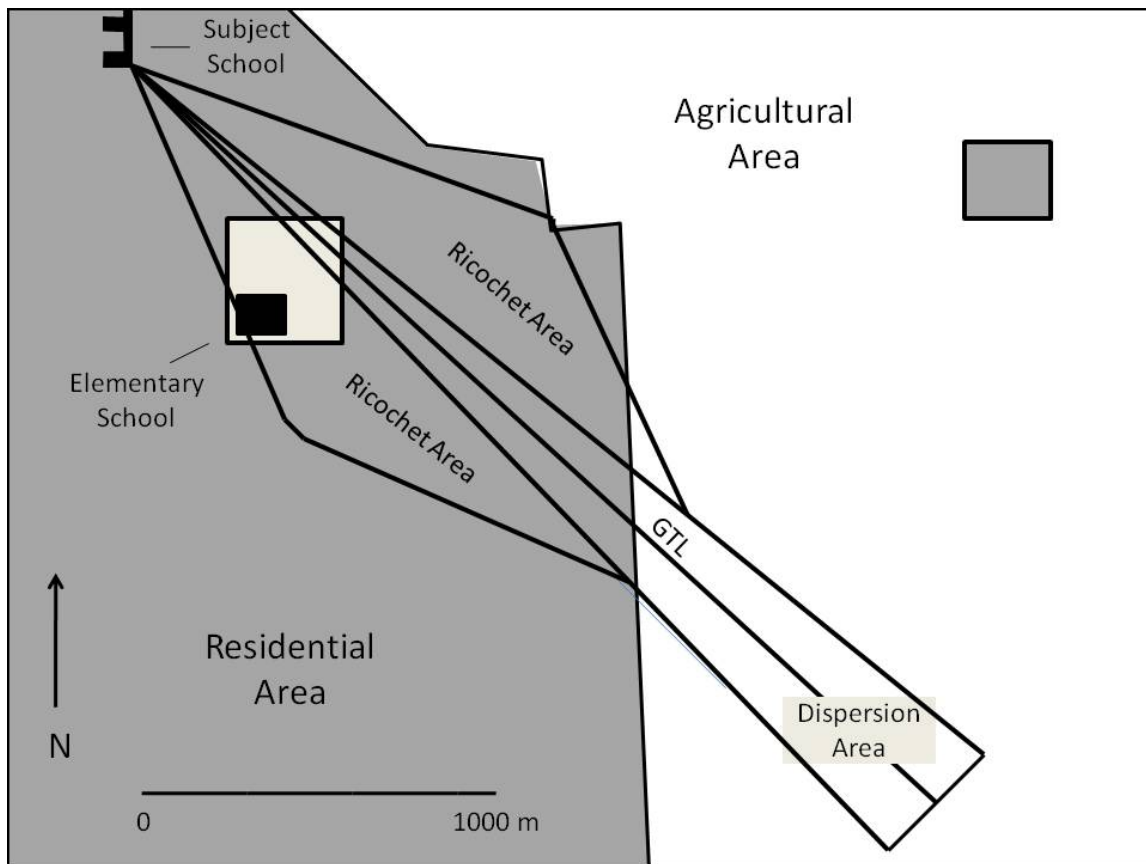


Figure 7. Hypothetical Attack on Subject School SDZ

Source: US Army, Department of the Army Pamphlet 385-63: Range Safety (Washington D.C., Army Chief of Staff, 2003). 175

Most of the SDZ is located within the community. In the hypothetical attack presented in this study, this SDZ predicts most bullets fired by a school security team would land within the community. It is estimated 50-70 homes are located in either the Dispersion or Ricochet Areas. Most significantly, an elementary school, with 400 children kindergarten through third grade, is also located within the SDZ.

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